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Illustrations OF HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

ST. GEORGE'S HOSPITAL.

INJURIES OF THE CHEST.

Under the care of T. TATUM, Esq.

CASE I. *Extensive Fracture of the Ribs, with Paralysis of one Arm, and other severe Injuries.* Mary Ann S., aged thirty years, a married woman, the subject of ovarian disease, and extremely nervous and hysterical, was admitted on January 13th, on account of an accident, in which she had been much injured. She was riding in a Hansom cab, when the horse started up a bank. She jumped out of the front of the cab, and the horse fell back upon her. When admitted, she was in such a state of collapse, that it was feared she was dying.

On examination, a line of fracture was discovered running all down the left side of the chest anteriorly, near the costal ends of the ribs, and a corresponding line posteriorly at the other extremity of the diameter of the chest, passing through the ribs on the right side near their angles. Thus all the true ribs in the body, and perhaps some of the false, were fractured, and several were comminuted. There was a comminuted fracture of the left clavicle, the fractured ends nearly penetrating the skin. She was labouring under concussion of the brain, and was restless, moving the injured arm about violently. From the presence of a considerable amount of blood in the ocular conjunctiva of both eyes, fracture of the anterior fossa of the base of the skull was suspected. This blood, however, was slowly reabsorbed, and she gradually recovered perfect consciousness, without any more decided bad symptoms showing themselves. When she had somewhat recovered, it was found that she was quite unable to move the right arm; and she has remained so ever since. Sensation appears to be unimpaired, or, if anything, is morbidly acute; but all the muscles of the extremity are paralysed. On examination in the neighbourhood of the origin of the nerves the only thing that could be discovered was a little bruising at the root of the neck. She suffered much from cough and bronchial expectoration (not tinged with blood) for several weeks; and the treatment, after she had been rallied from the extreme prostration, which at first necessitated the use of stimulants, consisted in soothing the cough by small doses of antimony wine and morphia, and stronger doses of the narcotic at night; the chest being carefully supported by means of a bandage. She remained for some days in a semi-delirious condition, the result partly of the injury to the head and partly of nervous agitation, but has since continued to improve steadily, and is now so far recovered as to be reported convalescent, though she is still kept in the house on account of her extreme debility. The fractured ribs have united, though with considerable deformity in some parts where the fracture was much comminuted; but she has not in any measure regained power in the arm.

REMARKS. This case is interesting from the great amount of mischief to the bony walls of the chest, and the comparatively slight effects which followed. All who have been accustomed to pay attention to the *post mortem* examination of surgical cases know the grave consequences which usually follow extensive fractures of the ribs, and in how many instances death results from them. It appeared, therefore, worth while to put on record a case in which all the true ribs were fractured, and many of them comminuted, and the fragments much displaced, without the evidence of any lesion of the lungs, and without the injury being followed by any considerable amount of inflammation, either pulmonary or pleuritic. As a contrast to the above, we will cite a case from the practice of the same surgeon, in which the lung was extensively lacerated, and death ensued without any fracture corresponding to the laceration. This is a subject to which little attention is usually given, and the injury is doubtless a rare one; still it is worth while to remember that it may exist, with a view to establish the diagnosis in any doubtful case. The symptoms have been described with great accuracy by M. Gosselin in the *Mémoires de la Société de Chirurgie*, i, 201, where he relates the history of two cases which occurred in his own practice and recovered, and refers to four others of which he had found details, three of which were fatal. In M. Gosselin's cases, however, the patients being of reasonable age, he had the opportunity of auscultating and percussing the chest at his leisure, of discovering beyond doubt the existence, and then of following the closing up of a large cavity, filled partly with fluid and partly with air, which could only have been produced by the accident, the patients having been previously in perfect health. In the case here cited this was impossible. Although the remembrance of M. Gosselin's paper and suspicion of the real nature of the injury rendered those in attendance on the case particularly anxious to obtain an accurate stethoscopic examination of the chest, the child's restlessness and extreme terror when her chest was touched rendered it both useless and cruel to proceed. Thus the history is left imperfect; but on the other hand, as the chest was carefully inspected after death, the fact of the entire absence of injury to the walls of the chest in the part where the lung gave way is put beyond doubt. That there was extensive fracture of the ribs, without laceration of the pleura, is not an element of any importance in the case, as such a fracture (the edges of which were so perfectly in apposition, that it was not detected even after the thorax was opened) could have had no part in the production of the lesion of the lung. The mechanism of the latter injury would seem to be that the force happens to act at a time when, in the agitation of the accident, the glottis is spasmodically closed, and thus the tissue of the lung is caught between two forces—the shock of the injury from without, and the resistance of the column of air confined within.

The fact that so extensive a fracture may exist and escape detection after repeated and careful examinations, and even on examination of the thorax after the removal of its viscera, is not without its own interest, especially in a medico-legal point of view.

CASE II. *Laceration of the Lung, without a corresponding Fracture of the Ribs.* Louisa C., aged two and a half years, was admitted on May 29th, 1856, under the care of Mr. Tatum, in consequence of an accident in which the wheel of a carriage had passed over her chest. On examination, it was not possible to detect any fracture of the ribs. Her great restlessness, and the noise which she made when any attempt was made to auscultate the chest, prevented any satisfactory examination in that way; but the hand applied over the right side of the chest felt the thrill of some large wave of fluid. She had a hacking cough, but little expectoration. The breathing was much oppressed, and extremely quick. She could not bear the chest touched in any part without crying out. The usual remedies to mitigate the pulmonary symptoms were made use of, but in vain. The dyspnœa increased, and she died on the fourth night after the injury.

On *post mortem* examination, there was found a slight bruise of the integuments of the right side of the chest. A large quantity of blood, part fluid and part coagulated, was found in the right pleural cavity. The pleura covering the right lung was coated with a layer of recently effused lymph, and was adherent through a great part of its extent to the costal pleura. There was an extensive laceration of the back part of the upper lobe of the right lung. There was slight inflammation of the

left pleural cavity. On removing the contents of the thorax, the right costal pleura was found perfectly smooth in every part; and there was no appearance of a fracture implicating the walls of the chest. But, on removing the coverings of the chest on the right side, it was found that the first rib was separated from its costal cartilage; and all the ribs were found fractured opposite their angles, except the tenth and eleventh. There was no displacement of the fractured ends. All the other viscera were healthy.

ST. BARTHOLOMEW'S HOSPITAL.

I. AMPUTATION OF THE THIGH ON ACCOUNT OF EXTENSIVE DESTRUCTION OF THE SKIN AND CELLULAR TISSUE.

Under the care of E. Stanley, Esq.

The improvement which modern surgery has introduced in the treatment of diffuse cellular inflammation renders opportunities of observing the natural termination of that affection in gangrene of the skin and cellular tissue, fortunately, rare. Such a case, however, was operated upon at the above hospital on Saturday last. The patient, a middle aged man, was admitted with extensive destruction of the skin and cellular tissue of the leg and thigh. The history was very obscure, or rather there was no intelligible history; but Mr. Stanley observed, that he knew of no disease except phlegmonous erysipelas to which the appearances could be referred. The destruction of parts was most extensive; all the tendons of the inner hamstring muscles were exposed; the muscles themselves partly involved in the disease; and a wide and deep cavity left in the popliteal space. The soft parts in front of the thigh were destroyed to so great an extent that there was not sufficient sound tissue left to form a flap from the anterior part; and large sores existed in several other parts of the limb. Under these circumstances, it seemed that the only chance left for the unfortunate patient, who would soon sink under the exhausting discharge, and whose limb was rendered permanently useless, was to amputate the thigh very high up. Mr. Stanley accordingly performed a kind of oval amputation. The femoral artery being commanded by pressure in the groin, the soft parts were divided almost perpendicularly down to the bone, a few inches below the fold of the groin; and the femoral and other large vessels were tied, before proceeding further. A large flap was then cut obliquely from the back of the thigh, and brought forward to cover the bone, which was sawed through not far below the trochanters. Considering the formidable nature of the operation, no great amount of blood was lost.

II. THE ÉCRASEUR.

Under the care of Holmes Coote, Esq.

The *écraseur* does not appear to have secured any large amount of patronage from London surgeons hitherto, if we may judge from the rarity of operations with it in hospital theatres, and the reports of the instrument-makers as to the number which have been ordered from them; yet, in the case of non-malignant tumours of vascular parts, some advantages seem certainly secured by its use, the principal of which are, of course, the absence of troublesome bleeding, and the smaller size of the wound left than after the employment of the knife. When the tumour is of a malignant character, the operator has more security for getting beyond the diseased portion with the knife, as the laceration of parts by the *écraseur* would render it difficult to determine whether any of the tumour remained in the wound.

Mr. Coote operated on a case, on Saturday last, in which a slight accident occurred, which demonstrated strongly the efficiency of the instrument in arresting hæmorrhage. The patient was a young woman labouring under enlargement of the clitoris and nymphæ, forming a tumour about the size of a small apple, and very vascular. A stout ligature was tied around the base of this swelling, to form a groove in which the chain of the *écraseur* should act. The instrument was then applied, and gradually tightened, fifteen seconds being allowed to each turn of the screw. A little bleeding occurred at first, apparently from laceration of the surface by the ligature. This soon ceased; and the extreme congestion of the hypertrophied portion, after two or three turns of the screw, testified to the great amount of blood which it contained. After the neck had been almost severed, the chain broke, and the remainder (a very small portion) was cut through by a stroke of the scalpel. This gave rise to considerable bleeding from a small artery. All the vessels in the remaining portion of the neck were sufficiently contused to command hæmorrhage, which would otherwise have been rather troublesome. Of course this little operation could have been performed easily enough with the knife; and, as the patient was sufficiently robust, the bleeding might have been of no great consequence: but cases very frequently occur in which such conditions do not obtain; and it would be well if sufficient evidence could be collected to settle the question as to the efficacy of the invention.

III. WUETZER'S OPERATION FOR THE RADICAL CURE OF INGUINAL HERNIA.

Under the care of Holmes Coote, Esq.

Mr. Holmes Coote operated on a patient with inguinal hernia by the above method on Saturday last. The plan consists in invaginating a portion of the scrotum in the inguinal canal, and procuring its adhesion to or near the internal ring by setting up inflammation at that spot. To effect this, an instrument has been contrived which consists of a wooden stem, terminating in a bulbous extremity, through which a long curved needle is passed, screwed into a handle. The stem is passed up the inguinal canal till the bulb comes to the situation of the internal ring, and thus a piece of the scrotum is pushed up the canal; the needle is then thrust forcibly through the stem. Its shape causes it to point directly forwards, and it is thus brought out vertically through the parietes of the abdomen. The handle of the needle is then unscrewed; and a shield placed upon the stem and neck keeps the apparatus in its place. The patient is confined to bed, and the apparatus retained in place for six days, by which time the resulting inflammation has united the inner surface of the invaginated portion to the internal inguinal ring, thus forming a permanent obstacle to the future descent of the gut.

Mr. Coote mentioned that five successful cases had occurred in his own experience, and that he believed the proportion of success had been very great. The success of the operation will depend, however, in great measure, on the proper selection of the point for perforating the abdominal wall; as, if this is taken too far from the internal ring, there will be room for the gut to slip down by the side of the invaginated piece of the scrotum. It should not be forgotten that, among the cases hitherto recorded (which exceed 100), in four instances death has resulted from the operation.

WESTMINSTER HOSPITAL.

BELLADONNA IN INCONTINENCE OF URINE.

With reference to a case reported from the above Hospital in the Journal for Feb. 21st, we are desirous of saying a few words to correct a misapprehension of our esteemed correspondent, Dr. Cowdell. This gentleman, in forwarding the particulars of a similar case under his own care, has taken occasion to animadvert on the report above alluded to, assuming that its object was the recommendation of this particular plan of treatment. Such, however, is not the case. We report, in this part of the paper, any cases which may appear of special interest, and which have been observed with sufficient care, without any reference to our own opinions as to their treatment; and in the present instance, the case was only one of several which we hope to record, some more, some less favourable to the treatment by belladonna. As to the accuracy of the report, we took all reasonable care, having derived it directly from the gentlemen who had charge of the case; and have ascertained, by renewed inquiry, that they confirm our view of it. The boy while under treatment had been carefully observed; he was sent back to an establishment where he would be strictly attended to; and, had he experienced any return of the symptoms, he would doubtless have been heard of again. Such at present has not been the case. We submit therefore that there was no inaccuracy in reporting him "cured"—though we are far from denying that the same causes (whatever they are) which originated, may reproduce the disease; and are ready to admit that it might have been better to have qualified our statement so far as to have reported him "apparently cured," or "cured for the present."

In conclusion, we beg to assure Dr. Cowdell that his courteous animadversion is taken entirely in the spirit in which it was obviously offered; and that far from feeling annoyed at his suggestions, we are always glad to see that our reports are being put to the use for which they are intended.

GUY'S HOSPITAL.

TREATMENT OF OPEN CANCER BY THE APPLICATION OF CHLORIDE OF ZINC.

Under the care of J. Birkett, Esq.

[*From Notes by* T. Bryant, Esq., *Surgical Registrar.*]

We have been favoured with notes of two cases in which the above escharotic was used in ulcerating cancer of the breast—the only two which have been so treated in Guy's Hospital, at least for a considerable time. We record these cases as bearing on the question which has of late acquired such interest, relative to the value of different local applications, and as a continuation of those which we have already published of a series which will embrace all the cases which we can discover to have occurred in the London hospitals. Such a series will furnish some (though we fear, from its limited extent, not very perfect) data for comparison with the results of the treatment of Dr. Fell and other plans for the cure of cancer, which will shortly be published. The fault of such cases is that they comprise only the least important of the points of treatment, viz., the local action of the application. The far more important question of the progress of the constitutional disease, and the respite obtained for the patient, is not settled by them, nor under the present hospital system do we see how (unless by accident) particulars bearing thereon can be obtained. Our readers must be content to accept from us all that our opportunities enable us to offer.

These cases, being necessarily somewhat protracted, cannot be reported quickly. We hope, however, to continue the series regularly, and to sum up its results at some future period. All that can be said of the two patients referred to below is, that the treatment appears to have temporarily succeeded in the first case, and to have been less successful in the second. It should be added, that the chloride was applied in powder mixed up with starch.

Case I. E. Bland, a female, aged 55, was admitted with a small carcinomatous tubercle (of the size of a walnut) of the skin over the left breast, of nine months growth, which had been discharging two weeks. On March 6th, 1855, the chloride of zinc was applied, and repeated on April 5th. On the 24th the whole tumour appeared to have sloughed away, and on May 6th she left with the skin cicatrising.

Case II. M. A. Morris, aged 52, was admitted into Guy's Hospital, under Mr. Birkett, on Oct. 29th, 1856, with open carcinomatous ulcerating tubercles over left breast, of five years and a half duration. On November 3rd, the chloride of zinc was applied; the application was followed by acute pain. On the 16th, the slough came away; and on the 17th, the chloride was again applied, from which a large portion of the tumour was discharged. On November 23rd, she left relieved.

ST. MARY'S HOSPITAL.

CASE OF DISEASE OF THE AORTA: ANEURISMS AT THE AORTIC SINUSES: CLOTS IN THE ARTERIA INNOMINATA AND LEFT MIDDLE CEREBRAL ARTERY.

By W. O. Markham, M.D., F.R.C.P., Assistant-Physician to the Hospital.

A female, aged 50, the subject of the following history, came into St. Mary's Hospital on the 4th instant. She walked into the Hospital, and gave the following account of her previous condition; thereby showing, that at this time there existed no paralysis either of sensation or of motion. She stated, that when very young she had suffered from some severe affection of the chest, and had ever since from time to time been in an ailing condition. The chief symptoms which troubled her were palpitations, cough, and a feeling of constriction of the chest. From the circumstance that old organised adhesions of the pericardial surfaces were found after death, and from the nature of the symptoms here mentioned, we may presume that this attack was one of pericarditis. Latterly these symptoms had increased in severity, and had incapacitated her for performing any hard work; in addition, she had also frequently had attacks of faintness and giddiness, and particularly in cold weather and on exertion. Occasionally, indeed, when out walking in the street she had been forced to cling to the walls or railings for support; and on account of her staggering gait she had been several times unjustly accused of being drunk. These symptoms increasing in severity, and her breathing in particular being very difficult, she sought relief in the Hospital.

On her admission, her lips were blue, her breathing very hurried, and the veins of her neck were much swollen. It was also remarked that the pulse at the right wrist was imperceptible. At this time she was perfectly sensible, and had perfect command over her muscles. She took her dinner, and went to bed; and in about an hour afterwards was found lying low in the bed on her back and insensible. Her right arm and leg were completely paralysed, presenting not the smallest rigidity when raised or moved. The pupils of both eyes were firmly contracted and immovable. The pulse at the right wrist was not perceptible, neither was any pulse to be felt in the arteries on the right side of the head and neck; I fancied, however, that I felt a very slight pulsation in the upper part of the right brachial artery. Occasionally, during her heavy breathing, the right cheek was puffed out.

Loud râles were heard over the front of the thorax; the breathing was very noisy, so that it was not easy to make a very careful stethoscopic examination of the heart's sounds. I satisfied myself, however, of the existence of a diastolic aortic murmur—a bruit, coincident with the diastole of the heart, being audible from the middle of the sternum down to its lower edge.*

The arrest of the circulation through the vessels supplied by the arteria innominata, the diseased condition of the aortic valves indicated by the bruit, and the suddenness of the paralysis caused me at this time to hazard the conjecture that a clot of fibrin had suddenly arrested the circulation through some one of the cerebral arteries—a conjecture which was fully justified subsequently.

The difficulty of breathing gradually increased, the paralysis and other symptoms remaining the same, so that the patient died about sixty hours after the first occurrence of the paralysis.

Post mortem examination. When the body was examined, the limbs of both sides were found of equal rigidity; there was no œdema, and but little fat on the surface; the superficial tissues were remarkably dry and bloodless. In both pleuræ there was a considerable quantity of serous effusion; the lower lobe of the left lung was thereby compressed and rendered nearly solid; the right lung was adherent at its apex, which contained a few old, small, tubercular nodules. The lungs were highly congested with bloody serum. The surfaces of the pericardium were everywhere firmly adherent by old and organised attachments. The roots of the aorta and pulmonary artery were matted together; and so likewise were the auricles. The heart was slightly dilated and hypertrophied; its aortic valves were thickened and slightly shrunken, and thereby rendered incompetent; water, when poured into the aorta, escaped freely through them into the left ventricle. The other valves were quite healthy. The arch of the aorta was dilated, and its internal surface much diseased, exhibiting everywhere signs of fibroid and atheromatous degenerations. In the aortic sinuses were found the openings of three small aneurisms. One, situated above the left coronary valve, admitted the little finger, and led into a pouch which passed behind the pulmonary artery towards the appendix of the left auricle. The openings of the two other aneurisms were at the right of the aorta, and situated above the right coronary valve; one was of the size of a filbert; the other was much larger, and pressed considerably upon the descending cava and the right auricle; the descending cava would not admit the entrance of the little finger.

The arteria innominata was found completely blocked up, for the last inch of its course, by a firm, whitish-red, hardish coagulum, strongly adherent to the walls of the artery, and extending up the whole length of the common right carotid. The opening of the left carotid artery at the aortic arch was not more than one-fourth of its natural calibre; being contracted by hard fibroid exudation into its coats. The left subclavian artery was healthy.

When the dura mater was opened, blood flowed rather freely from the venous sinuses; many red points appeared on the cut surfaces of the brain. A considerable quantity of clear serous fluid was present in the lateral sinuses of the brain. The left carotid artery, where it emerges from the sella Turcica and passes to the brain, was found completely blocked up by a firm reddish coagulum, which extended for an inch along the middle cerebral artery. The portion of the brain to which the middle

* I mention *the direction* of the murmur, because the fact (a fact, at least, as far as my observation goes) seems not sufficiently recognised—viz., that diastolic aortic murmurs are heard much more frequently and distinctly in a direction down along the sternum, than towards the heart's apex. The reason of this is not very clear; and the fact is evidently opposed to what might be conjectured *à priori*.

cerebral artery—the chief branch of the internal carotid—is directed was much softened, readily breaking down into a pulp, and particularly so was the left corpus striatum. The other parts of the brain, and likewise the vessels at its base, were found quite healthy in appearance.

There was nothing worthy of note to be mentioned concerning the other organs of the body.

Remarks. This case presents some points of interest both in a physiological and in a pathological sense. It appears clear that the arteria innominata was blocked up at the time of the admission of the patient into the Hospital, and for the reasons that the pulse was then imperceptible at the wrist, and that the clot itself was evidently not of recent formation. Consequently the functions of the brain were duly carried on, notwithstanding that its supply of blood through this artery was cut off, and that not more than one-fourth of the due amount of blood could have passed through the opening of the left common carotid. Also it is evident, that for the last sixty hours of life the only supply of blood which the brain received was that which passed through the left vertebral artery. The cause of the formation of the clots in the arteria innominata, and in the left cerebral artery, must be, to a certain extent, matter of conjecture. There were no local alterations perceptible in the vessels themselves which could give any account of clots. Both vessels, to all appearance, seemed perfectly healthy; the arterial branches at the base of the skull and around the obstructed artery were quite natural to the eye. Perhaps the existence of the aneurisms may give us a clue to the obstruction of the arteries. It is not unfair to presume that it was very possible for some broken down portions of fibrin to have been washed out of one or other of the aneurisms at the root of the aorta, and to have been carried along in the current of blood until arrested in their progress, acting then as a ligature of the artery, and causing behind it the formation of a firm fibrinous coagulum. This supposition is strengthened by the fact that the mouths of the aneurisms were large. There were no fibrinous beads around any of the heart's valves, so that the carrying away and arrest of one of these in the circulation could not have caused the clots, after the manner described by Dr. Kirkes. The softening of the brain was clearly secondary to the arrest of the circulation. In this case the supply of blood to the left middle lobe of the brain must have been wholly cut off; there could have been no compensatory supply to it through the right carotid artery.

To the practitioner, also, this case of paralysis, like so many others of its kind, offers a word of fruitful warning. What would a vigorous treatment have done here? What could any interfering treatment do?

Original Communications.

THE ATROPHY OF LIMITED GROUPS OF MUSCLES.

By F. Brittan, M.D., Physician to the Bristol Royal Infirmary, and Lecturer on the Practice of Medicine in the Bristol Medical School.

[*Read before the Bath and Bristol Branch, February 19th*, 1857.]

In the *Dublin Quarterly Journal of Medical Science*, for November, 1856, Dr. Reade, of Belfast, published a paper, entitled, "Contributions to the Pathology of the Spinal Marrow." In it he relates three cases to illustrate "a diversity of morbid action arising out of disease or injury of the same portion of the spinal marrow." The three cases are: 1. "Symmetrical muscular atrophy." 2. "Paralysis of the body beneath the phrenic nerves, from concussion." 3. "Paralysis of the body beneath the phrenic nerves during dentition." The first of these cases is adduced in illustration of the views of M. Cruveilhier on muscular atrophy, announced to the Institute of France, December 1855, and published in the *Archives Générales*, January 1856. The conclusions at which M. Cruveilhier has arrived may be thus summed up:

That there is a species of muscular paralysis, sometimes partial, sometimes general, which gradually and successively invades, fasciculus by fasciculus, and fibre by fibre, the voluntary muscles, leaving all the functions of nutrition intact, excepting that of muscular nutrition.

That this gradual muscular paralysis is the consequence of progressive atrophy of the anterior roots of the spinal nerves, and equally progressive atrophy of the corresponding muscles.

That this "*paralysie musculaire atrophique*" is analogous to that which results from section of muscular nerves.

That the facts appertaining to this form of paralysis confirm the theory of Sir Charles Bell.

And that these observations demonstrate a previously unknown influence of the anterior roots of the spinal nerves on muscular nutrition. These conclusions, M. Cruveilhier states, are founded on a great number of clinical facts; and they are preceded by a declaration so essentially French, that I cannot refrain from quoting it in the original. "Le hasard a voulu que j'aie été le premier à qui il ait été donné de faire l'anatomie pathologique de cette maladie; c'est là tout le secret de la part que j'ai prise à sa détermination, dont je ne crains pas de le dire hautement, parceque c'est la vérité; la priorité ne saurait m'être contestée."

I have lately had two cases analogous to the first in Dr. Reade's paper, under my care at the Infirmary; but as they offer certain important differences as to the history of the patients and early conditions of the disease, I think it may be worth while to publish them, with a few remarks; more especially as Dr. Reade seems to think them rare, or at all events to have been able to find but one recorded.

Dr. Reade's case is that of a young man, aged 19, nearly six feet high in his clothes, apparently a specimen of robust health and excellent constitution. Eighteen months previous to examination he had been distinguished amongst his companions in all athletic exercises, and well proportioned in his muscular development. "The first sign of the approaching disease was a degree of stiffness or difficulty of executing the motion of putting on and removing his hat" (in other words, of raising his hand to his head); never suffered pain, and has enjoyed uninterrupted health in all other respects. "When he stripped his body to the waist, he exhibited neck, chest, and arms to the elbow-joints reduced to the most abject degree of emaciation; this was symmetrical; the greater and lesser pectorals were little more dense than the strongest brown wrapping paper." The muscles of the neck, scapulæ and humeri, were reduced to the mere elementary outline of muscles; whilst from the elbows, the forearms and hands displayed the full development of a robust and vigorous man, with all the concomitant power, sensibility, and aptitude for use. He was under treatment for two years. A seton in the neck, the use of dumb-bells, and electro-magnetism were tried, but without material improvement. Six years later he was again inspected, and was found decidedly improved; the muscles more developed. The muscles of the neck have been fully restored, and the others considerably augmented and perfectly obedient to the will. The forearm and hand have lost much of their former bulk; but his occupation for the six years has been sedentary. His health has been uninterruptedly good.

The analogous case is quoted from Rokitansky. A labourer, aged 45, much exposed to wet and in the habit of allowing his clothes to dry on him, was attacked with pain in the left shoulder, which was most severe about fourteen days after it commenced. There was no swelling, redness, numbness, nor tension; but great pain when the arm was raised with the other hand: he could not lift it without. After the first week the shoulder was found wasted; as the pain subsided the wasting advanced, till the deltoid, supraspinatus, infraspinatus, and teres muscles seemed completely absorbed. The shoulder-joint was healthy, and there was no emaciation of the forearm or hand.

Dr. Reade regards this case as one of muscular atrophy from abeyance or destitution of the function of nutrition; and he states "these three cases illustrate a diversity of morbid action, arising out of disease or injury of the same portion of the spinal cord."

He also alludes to two other cases within his own cognisance; one of atrophy proceeding from the shoulders to the feet, accompanied by paralysis, and a second confirming Cruveilhier's statement of the pathology of this paralysis, the same morbid changes having been found in the roots of the anterior spinal nerves. We thus have muscular atrophy, partial or general, according to Cruveilhier, depending on atrophy of the anterior roots of the spinal nerves. Muscular atrophy partial, according to Dr. Reade, depending on imperfect nutrition, the result of disease of the spinal cord.

My two cases more accord with that quoted from Rokitansky, and show, I think, that muscular atrophy, with of course necessarily a quarter or less degree of loss of power, proportionate to the amount of atrophy, may sometimes depend on

another cause, or at least appear to spring from a different origin, and be connected in some way with rheumatism and the rheumatic diathesis. They are as follows:—

Case I. William Spencer, cotton-spinner, aged 24, was admitted under my care at the Bristol Royal Infirmary in November last. His history was as follows. Four years ago he was discharged from the 2nd regiment of foot, on account of an attack of rheumatism, for which he was in Hospital seven months. His joints were then much swollen. Three years since he felt aching pains in the left shoulder, with stiffness and inability to move it freely; these symptoms gradually increased, and, *pari passu*, the shoulder became more emaciated; he has, however, continued to work at the cotton factory until very lately.

He is now excessively emaciated all over the body as regards the muscular structures, the joints being very prominent, and the muscles feeling like mere cords. His ordinary position is with the elbows flexed to a right angle, the forearms supinated. He states that he can move his arms better at night, especially after exertion during the day; the attempt to straighten the arm gives pain. He can raise the arms without pain, but has not power to lift anything. His general health is good. The first sound of the heart is rather harsh and rough. He perspires excessively in his limbs, particularly on the thumbs, and most remarkably after the galvanism, which was tried without benefit. He left scarcely, if at all, improved.

Case II. Charles Webber, aged 23, short, but healthy looking, and apparently well made, became an out-patient, October 1856. By trade he is a shoemaker, and always enjoyed good health. He was lately a corporal in the 17th foot, from which he was discharged on account of his present disablement. Six months since, whilst on duty at Limerick, he was exposed to very heavy rains, and continually wet; on rising one morning after exposure could not walk, on account of pain in his right hip, knee, and ankle joints, which then began to swell. He was confined to bed for fifteen days. After the first seven days the pain passed to his shoulder and side of the head, leaving his hips and legs. Soon after the pain reached his arm he found the flesh between his shoulder and elbow diminishing, on the right side first, then on the left. In two months the arms were no larger than his wrists, and he could not lift them to his head. This continued for six weeks, when they began slightly to increase again, and he felt more power in them.

Present condition. His arms, from the neck to the elbow, are less than half of the natural size, all the shoulder and humeral muscles being much diminished; the biceps only seeming of anything like the natural size. There is very little deltoid, and the triceps feels like a mere band. His appearance exactly coincided with that of Dr. Reade's patient, as shown in the drawing that accompanies his paper. He cannot raise the arm well, but can flex the forearm on the arm firmly. He had no particular treatment in his regiment; nothing but liquor potassæ. He had syphilis three years ago, and a few spots came out as the rheumatism appeared. He was under treatment for a month, principally with iodide of potassium, and much improved.

I should feel great diffidence in suggesting doubts as to the correctness of M. Cruveilhier's assertions, supported as they appear to be by the observation of the morbid changes, described in the *post mortem* examination of the corresponding case, alluded to by Dr. Reade, did I not conceive that the cases now reported bore me out in the supposition that the cause alleged by Cruveilhier is at least not the only cause of this curious disease; but there are many other objections to this theory to which these cases direct our attention.

It will be observed that in Dr. Reade's case, and in my own, especially the second, there are several common peculiarities.

1. The symmetry of the morbid action.

2. The localisation of it to particular groups of muscles; for example, those of the shoulder and humerus, and, to some extent, the biceps; whilst the muscles of the forearm remained unaffected.

3. The uniform commencement of the atrophy in the upper parts, and progress downwards.

4. The absence, in each case, of more paralysis than must necessarily be the result of such a degree of atrophy; in fact, it is not paralysis, but loss of power from want of muscle.

Each of these, independent of all other considerations, appears to me to afford strong objection to either of these alleged causes of the morbid actions. For,

1st. They require that we assume the anterior spinal roots to be exactly symmetrically affected on either side.

2nd. With a knowledge of the extraordinary complexity of the arrangement of the filaments forming the anterior roots of the cervical nerves, more especially the different distributions and variety of muscles supplied by branches from the fifth, sixth, seventh, and eighth roots, it is almost impossible to conceive atrophy of these anterior roots, affecting only limited groups of the muscles, to all of which these branches proceed; for instance, how can the scapular muscles be affected with paralysis and atrophy, caused by atrophy of the spinal roots, through which their nervous filaments pass, without involving also the phrenic nerve; or of the deltoid and humeral muscles without corresponding affection of those of the forearm and hand, whilst the subscapular, musculo-spiral, and circumflex nerves may be traced through the plexus to the 5th, 6th, 7th, and 8th roots, and the ulnar and median to the same.

3rd. If we allow Dr. Reade's view, that these cases depend on imperfect nutrition, the result of disease of the spinal cord, which involves the influence of the anterior roots—in other words, M. Cruveilhier's theory—we must suppose, to explain these cases, that this function of the cord is so located and circumscribed that disease of its structural instruments may produce its effect without inducing paralysis; or assume (as Dr. Reade states his case proves) that, as the result of organic lesion of the spinal marrow, "muscular atrophy may exist without paralysis, as paralysis of motion may exist without disease of sensation or the converse."

4th. The absence of complete paralysis in each case, and the proportion between the wasting and loss of power, seem to evidence that the loss of power is more fairly to be ascribed to want of nutrition and loss of substance, than to loss of nervous energy.

In fine, I cannot help thinking that the phenomena of these cases give no support to the views of M. Cruveilhier or Dr. Reade; and without considering the evidence of the two I have related, and that of Rokitansky, as sufficient to prove any connection between this curious condition and rheumatism, they do, I think, afford reason to induce us to lean to the side of analogy, and look for some more general or diathetic reason to account for such peculiarities of mal-nutrition. I should add that there was no evidence to lead to the notion of lead affection, nor, as far as I could learn, had mercury ever been largely administered in either of the cases I have reported, though "spots," probably syphilitic, appeared with the rheumatism in the case of Webber.

THE "HYDATID FREMITUS" OF PIORRY.

By W. J. Little, M.D., Senior Physician to the London Hospital.

I respond, with much pleasure, to Dr. Markham's invitation to contribute my quotum of experience as to the value of the "son hydatique", or the "hydatid fremitus", of Piorry. After perusal of Piorry's treatise, entitled "*Exploration par la Percussion médiate*", I, like Dr. Markham, was inclined to consider that author's account of his *son hydatique* as a pedantic refinement of symptomatology. About 1840, however, I visited, late one evening, in consultation with Dr. Langmore, of Finsbury Square, a gentleman, aged 36, who presented, with other signs of hepatic derangement, an enormous abdominal tumour which had commenced in the right hypochondrium. A recent and sudden aggravation of symptoms occasioned the consultation. I discovered the presence of the "*son hydatique*" of Piorry, and realised the truth of Piorry's description, as quoted by Dr. Markham, "La sensation que le doigt éprouve et que accompagne le bruit (humorique) peut être entièrement comparée à celle que donne une montre frappée sur la surface opposée au verre." Upon the strength of this sign, I suggested that the tumour was probably due to hydatids. I was subsequently informed by Dr. Langmore that the same night the patient discharged by vomiting a *pailful* of them. Some months later I saw the individual, without signs of tumour, in tolerable health, although very spare in habit. I believe that he sank two years afterwards from the same disease.

With my present experience of hepatic tumours, I should, in such a case as that above related, rely much upon the great size of the more or less obscurely fluctuating mass in diagnosing its hydatid origin. I have never witnessed a perfectly similar case.

I once had under my observation an unmarried woman, aged 33, affected with a single hydatid or serous cyst of liver, causing abdominal enlargement equal in size to fully advanced

pregnancy. She was tapped as for ovarian dropsy; unhappily it was an hepatic cyst, not united to the abdominal parietes, some of the fluid escaped into peritoneum, succeeded by death in eighteen hours. Insufficient stress had been laid upon the sufferer's statement that the swelling commenced at epigastrium.

It is probable that if the nature of the tumour had appeared doubtful, and the opening into cyst had been cautiously effected through the intervention of potassa fusa, the patient's life would have been spared. This unfortunate instance may be serviceable as a warning and as a hint in Dr. Markham's interesting case.

CLINICAL OBSERVATIONS ON THE TREATMENT OF FRACTURES BY THE IMMOVABLE APPARATUS.

By Joseph Sampson Gamgee, Staff-Surgeon of the First Class, and Principal Medical Officer of the British Italian Legion during the last war; late Assistant-Surgeon to the Royal Free Hospital, House Surgeon to University College Hospital, etc.

[*Continued from page* 156.]

It was remarked in my last communication on the treatment of fractures, that the question is one of fact, and that *by fact it must be solved:* a process much more intricate and fraught with sources of fallacy, than its professed or apparent simplicity would lead one to suppose. Let any one examine the long catalogue of disputed questions in matter of fact in medicine and surgery, and he will arrive at the conclusion that their solution has been prevented, not so much by illogical reasoning, as by error in the observation of fact, and misstatement of the question at issue. To use the words of Sir Charles Bell,* "what are professionally called facts are for the most part only those notions which a man insensibly adopts in the course of his practice, and which take a colour from his education and previous studies. It is this which makes the facts of one age differ from the facts of another age; and the opinions of men differently educated to vary in what they are inconsistent enough to call matters of fact." The medical fact—I use the expression in its largest sense—is not, like the physical, a matter of simple and direct observation: it is, in the majority of instances, only arrived at by observation of several subordinate facts, by an exercise of extreme philosophic caution in excluding fallacy from inquiry into cause, and by logical severity in enunciating a statement of this mental process and its results. The laws of causation—always most intricate in the organic world—are so to a peculiar extent in all that affects deviation from the healthy standard of structure and function, wherein the relation of sequence is of itself no evidence whatever of causal affinity. The number of circumstances to be considered before a pathological or therapeutical fact can logically, and therefore with any sound hope of practical advantage, be referred to one or more causes, is so great, and requires so keen an analytical spirit, as to inspire doubt, whether many of those who specially devote themselves to medical inquiry have anything like a correct appreciation of its legitimate views, requirements, and processes. The following case of difficulty in diagnosing fracture is full of instruction in point in proportion to its simplicity.

An old man had fallen on the pavement, striking the left hip. Unable to rise, he was carried to bed; and a surgeon diagnosed fracture through the femoral neck, from the three following facts: very great difficulty and pain in raising the limb; ecchymosis and crepitation over the trochanter; shortening to half an inch. On being consulted as to the treatment to be adopted, I thus weighed the diagnostic signs. The difficulty of movement and ecchymosis, which were undoubted facts, were perfectly consistent with simple bruise. The crepitus and shortening, however, appeared an unmistakable sign of fracture; but, on examination, I found they were not facts. The crepitus was a slight superficial crackling, not a dull deep seated grating. On placing my hand over the sound trochanter, and moving it, I felt precisely the same crackling, which I consequently regarded as due on both sides to friction between the surfaces, most probably thickened and lengthened, of the old man's bursæ, the subcutaneous one on the trochanter, and the deeper one between that bony process and the insertion of the gluteus. At first the shortening seemed real; but, on placing the hips perfectly bent, and tracing down the bones, I discovered a curious congenital deformity of the internal malleolus on the sound side; it was almost twice its natural size, both in breadth and length. This fact, conjoined with the observation that the length of the two femora, as measured to the patellæ, was perfectly equal, demonstrated the fallacy of the previous measurement, as due, not to shortening of the injured member, but to congenital inordinate length of a bony process of the sound one. The grating and shortening excluded, I suspected the case might be one of simple bruise; such it proved to be, after the old man had been in bed three days, with the benefit of cold lotions.

I have related this simple case to illustrate the complexity of simple medical facts, and the care necessary to their appreciation, even in what is considered one of the most simple departments of surgery—the diagnosis of a fracture. How much more difficult is all that relates to the very beautiful but really intricate subject of therapeutics! a branch of which is the theme of my present series of communications.

To avoid what has been above referred to as the second great obstacle to the attainment of truth in medical and surgical controversy—*a wrong statement of the question*—I purpose clearly to establish the object I have in view in the publication of these clinical reflections on the treatment of fractures of the limbs by the immovable apparatus—a plan of treatment much more comprehensive than might be supposed by its designation according to the instrument employed for carrying it into effect. Its most essential features refer—1. To the principle of immediate reduction, whatever be the direction or character of the fracture; 2. To the immobilisation of the severed fragments, so as to allow movement of the body, whether for mere comfort or more cogent reason, as in the case of fractures in military practice; 3. The employment of gentle and uniform compression as the preventive and curative of the swelling which so frequently complicates fracture; 4. The plan of treatment under consideration aims at discarding the multifarious contrivances at present generally employed in the treatment of fractures, and establishing on a scientific basis general rules of treatment, so far as is warranted by known facts, and by the peculiar difficulties attending generalisation in medicine.

[*To be continued.*]

16, Upper Woburn Place, Russell Square, February 25th, 1857.

* Observations on Injuries of the Spine and of the Thigh-Bone. London: 1824. p. 73.

LARYNGISMUS STRIDULUS: ITS PATHOLOGY AND TREATMENT.

By Thomas Paget, Esq., F.R.C.S., Senior Surgeon to the Leicester Infirmary, etc.

I have been led to select the present subject of to-night's consideration by but slight, if any, merit of originality in the view I am about to bring forward of a very serious infantile disorder. I have not, however, under the head of asthma infantum or cynanche stridula of Parr and Miller, or laryngismus of Good and others, found the disease so systematically and clearly considered as its dangerous import to life and its complications seem to demand; nor any principle indicated in the various treatments named, which by an intelligible philosophy and a simplicity of aim would commend itself to confidence. I cannot hope that my paper will evince any other merit than that of an attempt to supply this deficiency. Others have most probably adopted the views and treatment. I shall have pronounced them.

The phenomena of laryngismus stridulus I need not describe to professional brethren in technical phraseology, much less define with didactic precision. Who has not been sitting by the infant whose mother was recounting the suffocating spasms which had torn her child for the last few days (or rather nights, for the days have been less distressed), while she had gone on hoping from day to day without sending for medical aid? Which of us, while so occupied, has not seen suddenly come a frightened, staring expression in the child?—seen its pallor of cheeks with lividity of lips and orbitar areolæ?—then noticed two or three coughs, expiratory jerks, or shrill cries short as explosions, it is difficult to say which to call them?—and witnessed the tussle that follows, when, the breath being thus jerked out, a closing of the glottis by spasm renders fresh inspiration impossible? How the poor thing writhes, struggles and stretches into opisthotonos, until want of air increases the pallor and lividity, which were at first only those of terror, to those of asphyxia, and the insensibility and relaxa-

tion of this state weaken the spasm. After this come the sounds which warrant the epithet "stridulus," the horrid, creaking, shrill whoops with which the air is drawn in through the half opened rima; and which so often delude parents into the fatal error of supposing that their child is only the subject of hooping-cough, which they conclude must have its course; so that nothing is done to stave off the convulsions which are so apt to finish the patient's suffering in death.

Besides, however, the essential symptoms, there are some very common though not constant adjuncts of the disease, which we will not lose sight of; namely, spastic contractions of hands and feet, involution of the thumbs into the palms, snatchings of the whole body while dozing, and even general convulsions, as above named; occasionally, too, much disorder of the chylopoietic organs, shown by sour smelling, curdy motions, green in colour and tormenting in their effect upon the intestines; but what severe infantile ailment is not accompanied by this plague as its effect?

In the diagnosis of this affection, the only mistake at all probable is the one before-named as common among parents, namely, confounding it with hooping-cough. Occasionally the sound of the first inspirations on relaxation of the spasm very much resembles the whoop; but the occurrence of the spasm after but a very few short coughs, or rather jerks, distinguishes one disease very decidedly from the other, in which the sound only occurs when protracted and violent coughing has considerably exhausted the aerial contents of the thorax. The name of spasmodic croup can but be thought unfortunate for this complaint. Neither eye nor ear that has once witnessed croup could possibly be led to think them alike; and the treatment requisite for either would damage the other by every agent used except emetics, which have been advised for both. In the sudden attack of dypsnœa with croupy sound which occurs in the night from indigestion, and is the only affection deserving the name of spasmodic croup, an emetic is, according to my experience, *the* remedy. In true laryngo-tracheitis, it seems little likely to help, and defers mischievously more valuable means.

The treatment of every malady is, of course, deduced from an insight into its nature and origin; or, to speak more in accordance with the vernacular of our science, its proximate, predisposing, and exciting causes.

As to the first or proximate cause, there is no doubt, I imagine, that it consists of a spasm of the laryngeal muscles closing the rima glottidis, and occasionally extending itself to the whole muscular system in the shape of general epileptic convulsion.

The second (predisposing) is found in the high sensitiveness and irritability which exist in infancy, and which are shown so signally in the snatches that are seen as the infant lies upon the knee of its nurse during the many feverish affections of childhood; in the rapidity of pulse obtained from slight causes; in the tendency to convulsions after surgical operations, etc.

The third, or exciting cause, I believe, can logically and philosophically be cited as one only, namely, the process of teething. How this third cause acts upon the second, so as to produce the first—the proximate or essential one of the disease—is the point to be explained. Whether the communications between the fifth, the portio dura, the eighth, ninth, and sympathetic nerves, will help to explain; whether or not in fact anatomy will of itself satisfactorily account for this, or indeed any other disease, certain it is that the communications and interlacings are sufficiently numerous and intricate to support the physician when offering solution of the causation in this affection to the most straight-haired metaphysician, physiologist, or casuist.

But if anatomy does not summarily settle the point, there is an approximate certainty that the spasm of laryngismus is due to dentition alone as its exciting cause, if we find that under no other circumstances, except those of teething, does the disease exist; that is, the distinctive feature of this disease—the stridor laryngis. Of course these circumstances of dentition set in at the earliest period of the child's existence, three or four months from birth, or earlier, and terminate only with the completion of the first set. That the same affection does not occur with the change from the first to second set, we cannot take as any obstacle to the conclusion we are arriving at, so different is the constitutional state, the nervous susceptibility of youth from that of childhood. From the assertion of Good that these "stridulous spasms of the larynx are sometimes found in adults", I am compelled entirely to dissent. It must be granted him that negative experience will not rebut the positive assertion of a fact observed; I question, however, if the passage above quoted deserves the title of a positive assertion, for it is only made by him in context with other random matter. In naming the means of distinguishing the disease from croup, he says, "Croup is, moreover, *an exclusive disease* of children; stridulous spasm of the larynx is *sometimes found in adults*". He neither says he has seen it himself, nor refers to any authority for the statement. Surely the whole passage is precipitate and unsound; for who has been five years in the profession without seeing laryngitis and tracheitis with the phenomena of croup in the adult? I have never seen the disease he has so aptly christened laryngismus stridulus after the period of cutting the first set of teeth. I do not think it has commenced under my eye later than the cutting of the first eight; and observation leads me to believe not only that authors are perfectly warranted in naming teething as one among other exciting causes, but that they would perhaps be more correct, more logical, if they insisted upon it as the only one of this peculiar affection. Dr. Ley has published an idea that these cases have their origin in another mechanical cause, namely, pressure of swollen cervical glands upon the recurrent laryngeal nerve. I have not been able to read his work yet; but if his idea be correctly reported by others, the objection to its value lies of course in the non-occurrence of the disease at any other time than the first two years of life; while, to sanction such a version, it should be a daily occurrence in practice at all ages. How far the derangement of the chylopoietic organs may be secondary to and only consequent upon the disease, it is difficult perhaps to say, so early does it begin in some cases. It must be confessed, however, it must always act as an excitor of the whole system by means of the *malaise* it inflicts upon the delicate fibrils of the splanchnic nerves, and thus be an auxiliary cause. That it is most probably only secondary, not *the*, or even *an*, original cause, I conclude, because I have seen cases without it; and the disease would be common at a later period of childhood if it were thus produced.

In the treatment of this serious plague of infancy, it follows that there are three objects to be fulfilled. 1st. The removal of the local irritation, or exciting cause. 2nd. The subjection of the predisposing cause or excitation of the nervous system before such means as lessen its sensitiveness. 3rd. The correction of chylopoietic mischief in order to remove an ancillary predisponent.

Of the first and third of these objects, little is required to be said. The free and repeated lancing of the gums over as many of the teeth as show swelling, redness, and heat, together with sedatives rubbed on the gums and cheeks, are all the means in our power for the first. Varied, but well recognised are those for the third object; but varied also is the need of them, many of the cases going on with little or even no chylopoietic derangement at all, some with a good deal. In all, however, as we before concluded, this mis-function (if we may coin a word) is probably secondary; and, if so, will be most effectually corrected by removing the approximate cause—the primary disorder. No one, however, would be likely to neglect the removal or the correction of acrid matter which, if in origin only an effect of the disease, must, by reflected agency upon the spinal system, help its continuance and increase its violence.

With regard to the second object, subjection of the predisposing cause, irritability of nerve, I have to say that I can nowhere find it at all clearly insisted upon; and I am quite convinced, both by the theory of the affection just given, and by practical experience, that this second is of paramount importance; that it is, in fact, *the* object in the treatment. Of course the agents to carry out this object are naturally expected to be found among narcotics; but the only recommendation I can find of this class is that of opiate and tobacco clysters; and apparently these are suggested only as a means to be used during the paroxysm: in short, as a palliative of its violence. Now surely no occlusion of the larynx, such as obtains in a spasm of this kind, could continue long enough to test the value of the remedy. Dr. Ley says it could not last three minutes without destroying life; indeed, the attack scarcely continues long enough to test the value of cold water sprinkled on the face, so rapidly does its violence and distress end in exhaustion and the consequent relaxation of the spasm. For the same reason the value of an emetic is really to be set down as *nil*. "An active and speedy plan of treatment," says Good, "is imperiously demanded, yet an antimonial emetic generally effects a cure as soon as it begins to operate." He surely must only mean the cure of one paroxysm, and the emetic could not be swallowed during it; or if by inspired knowledge it could be timed exactly before an attack, the spasm, dangerous to life by

its violence, would exhaust itself before any prudent emetic could operate. It would be easy but tedious to go through writers on the diseases of children, and to show how much at a loss they leave us for a principle on which to treat this "formidable and terrifying disease", as one of them aptly calls it. Miller, Parr, Good, Marsh, Clark, Ley, Evanson and Maunsell, Watson, West, Williams (the latter of whom is the most particular in his directions), insist upon various means—gum lancing, garlic, assafœtida, emetics, purgatives, fresh air, opiate and tobacco enemata, but they name no principle to be aimed at in the administration of them; the two latter seem only given as occasional remedies for violence or frequency of paroxysm.

If we have been correct in fixing upon teething as the one exciting cause of laryngismus stridulus; correct also in concluding that it becomes operative only through the excitability which is natural to infancy, but obtains in an exaggerated degree in certain individuals, it results that after the removal of the exciting cause, and taking care that no irritability of the visceral nerves shall add fuel to the fire; in fact, after lancing the gums, effecting a clearance of the bowels, and contriving a prescription, dietetic and medicinal, for the correction and prevention of acrimony in the bowels, we are left to what I believe to be our most important object, namely, the subjection of nerve excitement by means of narcotics: we are left, in short, to deal with the mainspring of the disease, its predisposing cause. Upon the narcotic to be used, upon the mode of giving it, or the dose required, I need lay but little stress, especially since it is well known how varied is the susceptibility of individuals in reference to this class of medicines. Suffice it to say, that the drug I have most used is opium; that, beginning with small doses, and cautiously regulating them according to their effect, I do not stop short of producing a constant drowsiness and some slight pallor; that when this state is obtained, the paroxysms decrease in force and frequency, the infant is calmly sleeping its day away, no longer devil-torn, nor are its friends racked with anxiety; and that when the paroxysms have failed to occur for some forty-eight hours, which will usually happen in from three to six days, the drug is gradually withdrawn, the quantity taken off each dose being immediately restored if the attacks show the slightest disposition to encroach again. I may say, also, that to attain to the required effect I have usually been obliged to give to children four or five months old (the age at which the disease most commonly, perhaps, invades) from one to five minims of tincture of opium in a dose with four or six of sal volatile two or three times a day; or if in enemata, five to seven minims.

The principle, then, I would enunciate as the object of treatment after the more obvious ones, the removal of all causes of irritation, is the quieting of nerve excitability—the drowning of hyperæsthesis in a guarded, gentle, yet decided narcotism. I think it probable I may find that there is nothing new in the treatment itself; that, in fact, others have for years pursued the same. It seems to myself so obvious a course that I should be almost surprised to find that it had struck me alone as the proper one. It is, however, the first time, as far as I know, that this principle has appeared in public.

I have depended upon it for the period of twenty years and more; I cannot add, without losing a case; but I can say that it has saved many, or seemed to do so; and with the strictest investigation memory is capable of affording, I see no reason to doubt its safety, its efficiency, or the prudence of continuing it. I therefore adopt it in every instance that presents itself. It is now some years since I named it at the meeting of the Provincial Medical Association held in Worcester.

ON SOME OF THE MODES OF ACTION OF IODIDE OF POTASSIUM.

By E. H. Sieveking, M.D., F.R.C.P., Lecturer on Materia Medica; Assistant-Physician to St. Mary's Hospital, etc.

[*Read before the Harveian Society, February 5th*, 1857.]

Of the remedies which we owe to the advancement of modern chemistry, there certainly is none which has obtained a higher place in the estimation of medical men than the iodide of potassium. There may be some difference of opinion as to its efficacy in this or that individual case or in certain classes of disease, but its general utility as a member of the Pharmacopœia is undenied and, I would add, undeniable. Rarely inducing any unpleasant effects and, unless administered with culpable carelessness, never giving rise to disturbances in the system of a dangerous and permanently injurious character, it may be classed among the safest and at the same time most beneficial remedies we possess. At times it induces, in ordinary doses, frontal headache and coryza, an eczematoid eruption, or brief salivation; but by diminishing the dose or persevering steadily in the remedy prescribed, we generally soon succeed in removing these symptoms, and the toleration being established, it appears to work for the good of the patient.

Having been called upon unexpectedly and at a very brief notice to furnish a paper for the Harveian Society, it will be impossible for me to enter fully into the various questions connected with the physiological and therapeutic action of this drug. At any time, such a subject could not be exhausted in the course of a single evening. It is my wish to present it to you under some of those aspects, under which I have very frequently witnessed its effects; the more so, as by so doing, I feel satisfied that I shall succeed in eliciting valuable information from the experienced members of the Society present.

The action of iodide of potassium may be defined, according to the more old-fashioned terminology of therapeutics, as alterative; and alterative most undoubtedly it is, for it appears to search out the malady which it is intended to attack, and effectually to alter the condition of the solids and the fluids which induces the morbid symptoms. The terminology of therapy now more in vogue would class it among eliminants; and "eliminant" it indeed deserves to be called, for it stimulates powerfully at least one, not the least important secretion of the body, and by promoting the action of the kidneys, causes an elimination of organic and inorganic poisons through their agency. According to another view, the iodide of potassium might be ranked as a tonic, and if to rouse the lymphatic and glandular system from a state of torpor, to promote the removal of sluggish enlargements, to brace the pulpy, flabby tissues of the scrophulous, be a characteristic of a tonic medicine, we may fairly class it under that head. Our object, however, is not to determine what exact place it may occupy in the materia medica, where so much is yet wanting to establish anything approaching to a scientific system; we would rather examine into its action in certain classes of morbid affections, by which we may illustrate the therapeutic effects of the agent. While we admit that this *à posteriori* mode of viewing the subject is not the best possible, we think that in the present state of medical science it is perfectly justifiable. Though it is necessary to remember that the method of arguing from effects, involves those errors to which the manifold interpretation to which morbid conditions are liable, must always tend to expose the deductions of the physician.

Of the various organs of the body, the kidneys most uniformly, as far as we know, demonstrate the action of the salt in question. We trace it by the well known tests in the urine, after the first dose; I have found it in the urine, after a course of iodides, forty hours after the exhibition of the last dose. It rarely fails to increase the quantity of the urine discharged, while it manifestly augments the amount of the solid constituents contained in the secretion. The urates, and the uric acid more especially, are evolved in larger quantities, and taking the urine as our test, we clearly recognise a material augmentation in the tissue changes excited in the organism. These tissue changes are rarely otherwise than for the benefit of the patient; they, with rare exceptions, stop short of such destructive processes as are set up by some other minerals; yet it is to be borne in mind that even the iodide of potassium may by too long continued exhibition prove a poison, and by inducing excessive metamorphosis of the tissues, set up a wasting azoturia. Those who have had to deal with such cases know how depressing they are to the patient, how tedious to the physician; but fortunately they are comparatively rare, and with ordinary care these, and even the temporary ill effects of iodide of potassium before alluded to, may be avoided.

I would propose to offer for your consideration the iodide of potassium under three different points of view, as applied to the treatment of disease. It is, however, to be observed that this by no means embraces all its therapeutic aspects.

The modes in which I will regard it, are:

I. As an evacuant of excessive morbid secretions in the cavities of the body.

II. As an antidote to organic poisons.

III. As an antidote to and eliminant of inorganic poisons.

I. *Iodide of Potassium an Evacuant of excessive Morbid Secretions in the Cavities of the Body.* While I would, in refer-

ence to the first class of cases, regard iodide of potassium mainly as an evacuant, I would guard myself against the supposition of ever viewing it exclusively in that light. It would appear under all circumstances to act differently from remedies which, like elaterium for instance, eliminate simply by exciting very copious discharges from the system. Even where its evacuant influence is the most palpable, the eliminating action does not always appear to be in the exact proportion of the amount of disease to be removed, but by its stimulant or tonic properties it corrects that morbid condition of the blood and the bloodvessels which led to the morbid product. The following case may serve as an illustration to these remarks, while it affords an instance of the class of cases in which the eliminant influence of the iodide is most strongly marked. It is a case of hydrothorax, of a subacute character.

CASE. J. M., the son of a carpenter, aged 7 years, was brought to me, with pain in the right hypochondria, attributed to a fall from a cart, which had happened eight or nine days previously. There was some cough. The right side of the thorax was enlarged, though the intercostal spaces did not project. Scarcely any movement was perceptible during respiration, in this side; it was absolutely dull throughout, anteriorly and posteriorly, except at the suprascapular space; this was the only point at which a vocal fremitus could be perceived, and that disappeared on lying down. Tubular breathing was found at the apex of the right lung, and diminished gradually downwards. The child suffered from dypsnœa, and had a distressed and anxious appearance. His pulse was 84. On the 11th Sept. 1855, I prescribed as follows:

℞ Potassii iodidi ʒss; spiritûs etheris nitrici ʒii; mist. camph. ʒviii. M. Fiat mistura cujus sumat ʒii tertiis horis.

Applicetur emplastrum vesicatorium magnitudinis 3 X 3, lateri thoracis dextro.

Sept. 14th. He was very much better, the appetite and breathing better, though the blister had not drawn. The bowels were open; discharge of urine free.

Sept. 18th. The patient was so much improved as to walk to see me; his cough was rather more frequent, but there was no expectoration; he was passing much urine; the bowels were open; the general appearance better and fuller; the dullness was diminishing from the apex downwards, and the dullness of the anterior thorax generally was diminished in the recumbent position. The tongue was furred at the root. The patient had slept better for three nights past. He continued taking the same medicine, improving in appearance and gaining flesh.

Oct. 2nd. The thorax is described as resonant, and presenting a fair respiratory murmur as far as the nipple on the right side. On deep inspiration, the respiratory murmur could be traced further still; below the nipple, it was tubular. A friction sound was heard about the middle of the outer side of the thorax. It was noted that the lungs were descending, and the fluid being absorbed.

Oct. 30th. There was still some dullness found over the lower third of the right lung, the breathing was normal below the scapula; anteriorly under the right nipple it was slightly bronchial, and the heart sounds were increased at the same point. The boy looks robust, has a good complexion and excellent appetite; the tongue is whitish; the pulse, 108. The medicine was now changed to the syrup of iodide of iron half a drachm in water three times a day, which he took until the 4th December. He then received cod liver oil, which he took to the 18th December, when the lad was discharged cured.

It will be observed that no other remedy was administered throughout the period during which the effusion into the pleural cavity formed the *corpus delicti*, and it may therefore be fairly assumed that the removal of the fluid was due to the iodide of potassium; hydrothorax not being one of the diseases which have a tendency to spontaneous cure. But I could bring forward other proofs of a similar stringency, though in the majority of cases we are not satisfied with trusting to one remedy only, but consider a multiplication of our agents necessary to reduce the fortress of the enemy. To continue the simile, we may urge that in our warfare, we too often do not rest satisfied with destroying or rendering innocuous the hostile battalions, but must needs batter down the strongholds as well, and throw our hot shells into his magazine so as to cause a grand explosion, and a blaze of light, followed by a no less deplorable darkness and desolation. In effusions into serous membranes dependent upon organic disease of an important viscus, the efficacy of iodide of potassium varies, and as a rule we should be less disposed to rely upon it, than upon other remedies. I have no experience of it in renal disease, where it would seem to be generally contraindicated, the more so as we rarely have to deal with morbid local conditions of the kidneys, until the disorganisation has proceeded too far to be benefited by this agent. Moreover, the undoubtedly stimulant influence it exerts upon the kidneys would contraindicate its employment wherever an increased afflux of blood to the organs would be prejudicial.

We would say one word upon the influence of iodide of potassium upon cerebral hæmorrhage. Its action in these cases appears to be analogous to the action manifested in the instance of hydrothorax above detailed, though it may be here suggested that the natural tendency of the disease is to spontaneous cure after the first shock has passed off. Still we have seen so many cases, in which a more rapid absorption of the effused blood might fairly be inferred after the administration of iodide of potassium, than seemed to be taking place before it was given, that we cannot but regard it as one of the most valuable aids we possess in promoting the absorption of the extravasated blood, and the consequent removal of the pressure which induced the symptoms of hemiplegia. We have in these cases to deal with an effusion of a different character, and of a much smaller extent than we meet with in serous accumulations; but equally as in the latter, we wish in no way to interfere with, but rather to promote, the plasticity of the blood; hence we cannot but regard a systematic exhibition of mercurials in these cases as most reprehensible; while the iodide of potassium, if it may not prevent the renewed effusion into the cerebrum, will not at all events impoverish the blood and thus facilitate a return of the hæmorrhage.

II. *Iodide of Potassium as an Antidote to Organic Poisons.* We here trench more upon hypothesis than either in the point of view under which we have just examined the salt, or under that to which I shall direct your attention in the third instance. Yet in some cases the presence of an agent that contaminates the entire fountain of life is so palpably manifest, that we appear justified, by analogical reasoning, to infer the presence of a similar agent in other cases, which do not admit of being traced back with equal certainty to an organic poison. The syphilitic poison is undeniable, whether it manifest itself in the primary chancre, the contagious bubo, the ulcerated sore throat, the cupreous eruption, or the flat condyloma; in one sense we can scarcely refuse to admit that the proximate cause of rheumatism is a poison; in many skin diseases of an obstinate and a recurrent character, the evidence at our disposal tends to prove that a poison circulates in the system, which may periodically fall into a state of abeyance, but which, unless searched out, and neutralised by a more powerful agent, breaks out every now and then, to the annoyance of the patient and the disappointment of the medical attendant. Lepra and psoriasis appear to bear this type in many cases. The skin diseases that present the same outward characters often differ materially in their proximate cause and in their relation to the constitution of the individual; hence it is as erroneous to apply a uniform remedy to all scaly, all herpetic, or all impetiginous eruptions, as it would be to treat all cases in which we hear a crepitant noise in the thorax with the same tartrate of antimony mixture or Plummer's pills. It is impossible to give ocular demonstration of the organic poisons, but of the existence of some peculiar compound which is amenable to treatment by iodide of potassium in many of the cases alluded to, we entertain no doubt. In the instance of rheumatism, the existence of an organic acid in the blood appears to constitute the materies morbi which may either be decomposed or be ejected from the system, but in both cases rendered innocuous under certain circumstances by iodide of potassium. Where much depends upon analogical reasoning, the diagnosis of a chronic affection is necessarily rendered a matter of difficulty, and it is a severe test of medical ability. In many cases, we may be compelled to reserve our diagnosis until we have brought the guns of the Pharmacopœia to bear; there is this advantage in employing iodide of potassium as a test, that it will not be used at any serious risk to the patient, but will very probably prove beneficial.

There is some difficulty in selecting cases in illustration of the view we are now taking, since it rarely happens that in the very chronic cases to which we allude, it is wise to adhere to the use of one remedy throughout. Consequently, a person disposed to refuse credit to the remedy in question, may attribute the curative influence to another agent. The conviction which a multitude of individual experiences and experiments forces upon the practitioner, cannot easily be conveyed by the quotation of a single case.

III. *Iodide of Potassium as an Antidote to and Eliminant of Inorganic Poisons.* The cases of metallic poisoning which most

frequently come before us, are those of artificers who are employed with lead in some form or other, most commonly as the acetate or white-lead, and thus receive the poison in small quantities, gradually absorbed, into the system. Painters necessarily are most liable to suffer in this way; the facility and rapidity with which the system becomes affected depends upon a variety of circumstances; the vigour of the patient's constitution, his habits of cleanliness, the purity of the atmosphere in which he habitually works. The most rapid case of saturnine intoxication that has occurred in our own experience, was in a man not generally employed in this way, who for three days was engaged in applying a new process to the fastening of a roof, in which red lead was employed; during the whole time he was in a confined locality and forced to respire the fumes of the lead, and at the end of the three days gave unequivocal signs of lead-poisoning. The blue line which was shown by Dr. Burton to fringe the gums of persons poisoned by lead, and possibly dependent upon the formation in the system of a sulphuret, is an almost invariable characteristic of the affection, yet cases do occur where after exposure to the poisonous influence, symptoms are manifested which resemble lead-poisoning, and yield to the iodide, though the blue line is absent. Of the rapid action of iodide of potassium in saturnine neuralgia, the following are instances.

Case. George C., aged 27, a painter, had colic two months previous to coming under my care. He then had been affected with it for six days, and was slightly jaundiced. His belly was hard, but towards night it became as "hard as a stone." There was no tenderness. A slight blue line was seen to edge the gums.

Sept. 15th. The following medicine was ordered:

℞ Potass. iodidi gr. v; liquoris opii ♏x; misturæ camph. ʒi.

The pain ceased two days after commencing the medicine. The liquor opii was then omitted. On Sept. 26th, it is stated that the colic is much better; that there is still occasional pain in the upper left abdomen; that the blue line continues. I then gave him ten grains of iodide of potassium, and three weeks later there had been no return of pain.

The following is a similar instance.

Case. Thomas L., aged 28, painter, had never had colic or dropped hands, till a fortnight before coming under treatment he was attacked with severe and constant pain about the navel; the parts were tender; sense of nausea; urine high-coloured; bowels costive. A trace of blue line round several teeth. Pulse 72, normal. Good appetite.

Dec. 12th. The following pills were ordered to be taken every night at bed time.

℞ Pilulæ colocynthidis comp. gr. x; olei crotonis gtt. i.

Three days later, the pain is stated to be less; the bowels had been moved twice each day. The iodide of potassium was now administered in five-grain doses, and three days after the pain had left him, and though under treatment for other affections, for above two months, the pain did not return. The iodide was continued for some time, and when discharged cured, the gums were restored to their normal condition.

Many interesting questions are connected with the action of iodide of potassium in cases of metallic poisoning; not the least important being the mode in which the metal is eliminated. That it passes off by the urine has been demonstrated; but it is manifestly eliminated by other channels, because, at times, during its administration in undoubted cases of lead-poisoning, while the patient is rapidly recovering, the lead cannot be detected in the urine. We must then assume that it passes off by the bowels, after being set free by the antidote. Nor is the detection of the lead itself in the urine so easy a process; it does not occur in the form of an ordinary salt, but appears to enter into a very intimate combination with the organic matter of the urine, which must be destroyed before the common tests serve to demonstrate it.

In an ætiological point of view, the study of lead-poisoning is extremely interesting, as it gives rise to the most varied forms of nervous disease, in all of which an accurate diagnosis is the more important, as the proper remedy will rarely fail to establish a cure, that remedy being iodide of potassium. Thus epilepsy, almost always a disease with a doubtful prognosis, appears to lose this character when we trace it to lead-poisoning; for the cause may be removed, and with it the demoniac seizures likewise disappear. Steel and quinine, our ordinary anchors in neuralgic affections, fail us in lead-poisoning; but we are sure of allaying the pain as soon as we know that it is a case for iodide of potassium.

There is another metal which, to the disgrace of our profession, has long been employed to poison our fellow-men, under the protection of the ægis of science, but which now appears to be placed under such restrictions as to render it truly a remedial agent: we allude to mercury. This drug also, in its poisonous effects, finds a powerful and certain antidote in iodide of potassium. The latter searches it out in its various combinations with the organic constituents of the body, and, after more or less resistance, effectually expels it. Some pain most generally results from the mercury being first set free; and even salivation, which had subsided, may thus be again excited; but, in salivation itself, we know of no more effectual remedy, besides the exhibition of local astringents (upon which, however, we would not lay much stress), than the iodide.

We will close this paper by quoting a case in illustration of its efficacy under these circumstances.

James C., a painter, who had generally enjoyed good health, had been taking flowers of sulphur during the preceding summer, to counteract the effects of the lead paint with which he worked, but had never had the colic or dropped hands. Two weeks previously, his face began to swell. At first there was sore throat; then the gums swelled; and the teeth, which previously had been sound, became quite pulpy. The gums, at the time of consultation, were invisible, from the tumefaction of the adjoining parts. There was a decided mercurial fœtor, and the man bore the stamp of a man who was salivated; still he denied having taken any mercurial, and ascribed his affection to using a vinegar and rye gargle, and to working in a damp place. However, I prescribed—

℞ Potassii iodidi gr. iv; infusi cascarillæ ʒj. M. Fiat haustus ter die sumendus.

Sumat olei ricini ʒss omni mane.

Habeat decocti quercûs Oj pro gargarismate.

At the next visit, he, on repeated questioning, admitted having been in the habit of occasionally taking some pills prescribed for him by a physician a long time ago, and which contained some hydrargyrum cum cretâ. The treatment was steadily persevered in, and the improvement was satisfactory. In the third week, the report is, "Doing well; teeth recovering their normal appearance, but still loose, though less than they were; there was a blue ring round the gums." He now returned to work; the mercurial fœtor soon entirely disappeared; and in another month he was able to masticate.

In conclusion, allow me once more to revert to a remark made at the earlier part of my paper, that my intention has not been to exhaust the subject, as I know full well that much more might be said upon the action of iodide of potassium in other maladies than those named. My desire has been to submit for your consideration some of the opinions which practical experience has induced me to form relative to the drug we have considered, and to elicit from the stores of your own observation further illustrations in regard to its use and effects.

Lectures

ON CERTAIN VIEWS ON THE NATURE AND TREATMENT OF PHTHISIS PULMONALIS.

DELIVERED AT THE

BROMPTON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, IN THE SUMMER OF 1856.

By Edward Smith, M.D., LL.B., B.A., Licentiate of the Royal College of Physicians; Assistant-Physician to the Hospital, etc.

Lecture III (*concluded*).

REMOVAL OF THE EFFECTS OF THE DISEASE BY ABSORPTION AND EXPECTORATION. GENERAL SYMPTOMS: PULSATION, HÆMOPTYSIS, COUGH, DYSPNŒA, NIGHT-SWEATS, WASTING, AND DEBILITY. MODE OF ACTION OF COD-LIVER OIL.

Debility and wasting are invariable concomitants of the disease in some of its stages; and it is highly probable that the former may in many instances be both a cause and an effect. Neither, however, necessarily precede phthisis, nor indeed necessarily attend the early stage of the disease. As a cause, debility acts, as has already been pointed out, by lessening the intensity of respiration; or, in other words, both the debility and the lessened respiration are due to or connected with lessened nervous influence. Thus it is that systems of defective organisation, as those of the scrofulous diathesis (if we would refer to a large and heterogeneous class in illustration), are so

prone to the attacks of this disease, and connect so frequently debility of body with liability to phthisis. It is also worthy of note, that such persons commonly have narrow and flat chests; that is, have a lessened thoracic cavity, and consequently a capacity for respiratory influences unduly small in proportion to the size of the body, and at the same time a lessened muscular power in effecting the act of inspiration. All these circumstances act together, and tend to one common end. As respects wasting, I do not think that there is any evidence which could prove that to be a necessary cause of the disease; and, although it is so frequently observed as an early concomitant of phthisis, it is in fact due to the conditions which have led to phthisis; and, on the generic view which I have taken of the nature of this disease, it is at some period due to the phthisis itself. There cannot be a doubt that it is frequently found before tubercle can be detected, and therefore may not be due to the tubercle; but it is the result of that condition which ultimately leads to tubercle, and which ought properly to be called the first stage of phthisis.

Regarding, then, both the wasting and the debility as effects of phthisis, in what mode are they induced in the early stages? They are not necessarily induced from want of food, or of the due alimentary digestion of the food; for, whilst the appetite may be capricious, there is commonly abundance of food taken to sustain the system. Neither are they due to waste of the food; for vomiting and purging do not usually exist at all at that period. They are not, I believe, due to excessive excretion of material from the system; for there is not generally any change in the function of the liver, except it be, that it is lessened; nor in that of the skin. As respects the state of the urine, I do not think that there is any change in the early stages that could be seized upon; and although, in the later stages, there is often a large deposition of lithates and oxalates, and sugar in a small quantity, these changes are neither sufficiently intense nor sufficiently constant to warrant us in believing that any great waste of tissue proceeds in that direction. In the inquiry which I prosecuted here last year, I carefully examined, microscopically and chemically, the day and the night urine of fifteen patients, daily for one month; and have obtained a large amount of material for analysis; but the limits of this course of lectures prevent my now referring to them, further than to state that the solids in the urine in phthisis are less in quantity than in health. Hence, as the wasting is not due to want of food, nor to waste of the food, we are compelled to fall back upon the deficient respiratory function; and there we find two causes for both the wasting and the debility. They are the deficient elaboration of the food, whereby the blood is imperfectly fitted to sustain the tissues of the body; and the permanently increased rapidity of the blood-current, by which the due deposition of material is prevented, and the removal of old material increased. It is quite evident that both of these must tend to the impoverishment and waste of the system. The intensity of their action will vary with the degree of the deficiency of respiration, the temperament of the patient, the season of the year, and the favourable or unfavourable hygienic conditions in which the patient is placed; and hence, although they must occur in every case of phthisis, may occur more or less early, and with more or less of intensity. My colleague, Dr. Thompson, has ascertained that the figure of the red corpuscles is somewhat changed, as well as that the quantity of those oxygen-bearing bodies is lessened in advanced phthisis. The quantity of fibrine is also lessened in the stage of sweating, and probably its quality is injured; and, with a thinner condition of the blood, there is a less quantity of material for nutrition and enervation, less power of coagulation, and a greater tendency to extravasation of that fluid. The muscular structure becomes flabby; the skin soft and relaxed; the teeth and other dense organs lose much of their colour; and the condition known as fatty or oily degeneration is met with in perhaps every tissue of the body. The former facts indicate a want of due tonicity, and of both nervous and vascular energy; and the last not a retrograde metamorphosis necessarily, but defective elaboration of material at the time of its deposition. By way of parenthesis, I may state, that the term fatty degeneration is liable to mislead, since it does not always imply a degeneration of the material already deposited, neither is fat in fat-cells necessarily a degeneration at all. In phthisis, the fat is removed from the cells; and the fatty degeneration, as it is called, consists of globules of oil occupying the sarcolemma of muscles or the cancelli of bones; that is to say, in many parts in which normal fat is not deposited, as well as in the areolar tissue, which normally contains fat.

The point to which I would at this moment call particular attention is, that the various morbid conditions to which I have now referred are due to the results of lessened aeration attending phthisis, and are not causative of phthisis; and that with them the deposition of tubercle in the air-cells of the lung is an accident—is not the cause of these conditions, and is not caused by these conditions. It is the practice to refer to this malnutrition of the body and deficient elaboration of material, with its morbid products, as evidence that tubercle itself is a morbid product allied to them; and hence, that it results from the tubercular blood-disease before discussed. The two circumstances are co-ordinate, and it may be that the morbid condition of the system shall have set in before the stage of the deposition of tubercle; but it does not thence follow that the tubercle is morbid material, although induced by the malassimilation of the material. Let us keep distinct in our minds the conditions which are the effects of the lessened respiration, and those which caused the lessened respiration; and let us remember that, whilst both the tubercular deposition and the morbid material in the system may be due to the one common cause of deficient respiration, they are not necessarily due each the one to the other. There can be no doubt that, as the system becomes impoverished, it will become enfeebled, and the respiratory process be less and less perfectly accomplished, and, as a consequence, the deposition of tubercle be hastened or increased in extent; but the tubercle would still not be a deposit from the morbid processes.

Such, then, being the explanation which I would give of the cause of the debility and wasting (assuming that no renal or other secondary complication exists), the plan of treatment is obviously to improve the elaboration of the blood by an increase of the respiratory process, if the quantity of food which can be supplied and taken, and the digestion, are normal. In the early stage, this is possible, for the obvious reason, that the air-cells are not so numerously implicated, and, if implicated, are not so entirely useless as at a later stage of the complaint. The aim, then, is to prevent further extension of deficient action to cells which may be more normal than others, and to restore as far as possible to increased activity those cells which are becoming useless. This must be effected directly by increasing the power of the nervous system, and indirectly by the mechanical distension of the cells as before advised. The former is attempted when we direct change of air and scene, amusement for the mind, more activity of both body and mind (if it should have been deficient), less anxiety, vigorous calisthenic exercises, sea air and bathing, sea voyaging, and such nervous tonics as iron, quinine, and nux vomica. To let the correction of the secretions (which may be more or less at fault), or the relief of some pectoral irritability or uneasiness, be our chief, much more our only aim, would be to treat effects, and leave the cause untouched. If the nervous power cannot be increased, and the respiratory process invigorated, it is evident that we can have no hope of arresting the disease, much less of restoring to the body its healthy processes.

The mechanical distension of the lung by deep forced inspirations is, as I consider, chiefly indirect in its action for the purpose in hand. Hence, both directly and indirectly, we may seek to restore the normal amount of respiration, which itself would imply the increase of nervous power as its cause, as also as its effect. Then, with increase of respiration, we may look for better assimilation of food, and lessened rapidity of circulation; and, as a further result, a better quality of nutritive material, a more quiet and effective deposition of it, and a lessened rapidity in its removal. Waste and debility would thus be lessened.

Cod-Liver Oil. The discussion of the merits and mode of action of cod-liver and other oils in phthisis is one which presents peculiar difficulties to my mind; for, on the one hand, I cannot but think that we are liable to be unduly influenced in its favour by the existing tone of popular feeling; and, on the other, we really have too little information to enable us to explain its action on good physiological principles.

There is a general belief in the minds of patients, and also of medical practitioners, that the oil is beneficial in phthisis; and, on inquiry, I find that the patients refer the beneficial effects to improvement in weight and strength, and oftentimes to ease in the acts of coughing and of expectoration. We will for the moment omit reference to the latter; and state that, in other states of system apart from phthisis, oils are also beneficial. These states are wasting and debility, where they do not depend upon defective primary assimilation of food; that is, in the very states in which oils are useful in phthisis. So far, then, there is nothing peculiar to this disease in the

action of the oils. But there is this broad line of distinction between the two cases: in states apart from phthisis, the debility and wasting have been due to, or at least connected with, a less supply of food to the system; as, for example, after fevers or some chronic disease, or long continued anxiety, grief, or over exertion; and hence we may readily infer that, with a deficient supply of food in general, there would have been a less supply of fatty or other carbonaceous matter in particular, and thence would result the wasting. There would not be coincident with the debility increased respiration and pulsation, with the corresponding requirements of a larger supply of carbonaceous material. In phthisis, however, the wasting and debility are accompanied by a sufficient supply of food; and, at the same time, the rate of respiration and pulsation may be, and at some period always is, increased. A question might be raised here as to the amount of carbon contained in the food of phthisical patients; for I have ascertained that, in a large proportion of such cases, there is, and always was, a dislike to fat food, more particularly after the disease had fairly set in; but opposed to this is the fact, that at the same time they will take plenty of butter, sugar, beer, and wine, and a fair supply of vegetable matters—substances which should surely do much to supply the requisite amount of carbon. There is, however, no proof that the desire for the latter articles containing carbon has increased with the decreased desire for fat meat; and hence the total quantity of introduced carbon may be lessened. But, on the other hand, many persons in health never take fat meat; and there is not any evidence to prove that such are particularly liable to phthisis, or any other disease of wasting and debility. Upon the whole, I doubt if any defect in the quantity of carbon in the aliment is the source of improvement in health, from the introduction of oils in medicines. Whether, however, the more general use of oils in the form of inunction, and also in such food as salads, after the fashion of all ages in hotter climates, would be conducive to health, and thence tend to ward off the attacks of phthisis in these colder regions, may be open to inquiry; but since, in the earliest condition leading to phthisis, it is customary to find feeble and inefficient respiration, whilst the quantity and quality of food remain much the same as before, we should rather, *à priori*, be disposed to infer that at that period, and, *à fortiori*, at later periods, the blood is surcharged with carbon; and hence, that the introduction of an unusual quantity of oils would lead rather to disease than to health. Vierordt ascertained that 260 cubic inches of carbonic acid gas exist in the pulmonary capillaries in one minute in a healthy person, whilst at the same time the quantity evolved would be only 13¼ cubic inches with 12 respirations per minute, and 24·2 cubic inches with 24 respirations per minute. In phthisis, it is true that the amount of capillary ramification is greatly lessened; but I presume, as the quantity of blood in the body cannot be much influenced by that fact, the quantity of carbonic acid in that fluid would not necessarily be less than in health; and hence, as the respirations are at first both feeble and not increased in rate, and afterwards feeble and increased in frequency, the quantity of the gas evolved must surely be less than in health, and more would therefore be retained in the blood.

In order to obtain further information on this subject, I have entered upon the following mode of investigation. If cod-liver oil have any effect over the respiration (other than chemical), it would be shown by taking it fasting in the morning; that is, when the system is fresh, the stomach free of the remains of food, and the functions of the body rather increasing than decreasing in activity. I therefore, at 8 A.M., eleven hours after taking food, and before making any exertion, took five drachms of cod-liver oil alone; and immediately, in consecutive inquiries of five minutes duration, ascertained that the frequency of respiration, the quantity of air inspired at each inspiration, and the total quantity per minute, were all reduced, and the latter so much as one-eighth of the total volume. The pulsations, but especially the temperature of the breath, were both increased for a period. Thus the diminution in the inspired air, with at the same time increase of animal temperature, implies rather an influence upon the nervous system, whereby the intensity of the vital chemical action was increased, than any excessive requirement of oxygen in the processes of respiration, to meet the increased quantity of carbon which has thus been introduced into the system.

These results are of peculiar interest, as they are so opposed to the effects of food; for food of almost every kind at once increases the frequency of all the functions, and the quantity of air inspired. Thus so far it would seem that the action on respiration of cod-liver oil is opposed to that of tea in particular, and of food in general, except that of wine, with which it closely corresponds.

Such, then, being the facts of the case, unless there be some error, how can we attribute the good effects of the oil to the carbonaceous element? I do not see how it is possible; but I would rather direct inquiry in another direction. I believe it to be true that, in many instances, the weight and strength of the patients are materially increased on taking the oil; but it has yet to be proved in what per centage of the whole cases of phthisis, in all stages, this improvement is found. I feel assured that they do not by any means comprehend the whole number of such cases, or even a majority of them (for the instances of success, and especially if the improvement be marked, are apt to engross the attention unduly); and hence it would become a question whether, in the particular instances of improvement, there was any defect in the supply of carbon in the aliments, or any particular excitement of the respiration which would have called for a larger supply of that element than the food was able to furnish. There is clearly less difficulty in discussing the question, if the good effect be restricted to only a section of the phthisical cases, although we may be quite unable even then to ascertain its true mode of action. The true course appears to me to take each case by itself, and apply to it the ordinary chemical and physiological knowledge which science has afforded to us, in order to determine the question; since I much doubt if, in the direction now under discussion, any general law can be discovered which shall apply to phthisis and phthisical patients universally.

Then, again, it is open to inquiry whether the good effected is permanent, or only temporary; for, if it be only temporary, it is clear that no law relating to phthisis universally would be discoverable. Now, I fear that we must all admit both that in many instances no good whatever has followed the employment of the oil, and that in almost all cases the effect is temporary, although for a time it may be renewable. If it were permanent, we should have the pleasure of permanently arresting the disease constantly, and of preventing the fearful mortality which still occurs. But we know that, notwithstanding all our remedies, the patients die. The good effect is, I believe, most frequently observed in the early stage, in which the system is but little influenced radically, and in which the amount of residual air and pulmonary capillary circulation is fully sufficient for the maintenance of the system. Then also the mind is more influenced by hope; and we cannot doubt that the reputation which, rightly or wrongly, attaches to the remedy in the minds of patients, and especially of the poor, is great, and likely in itself to bring about a temporary good. At a later period, the respiratory process is materially impaired, an excess of carbon must remain in the blood, and oils and every other remedy can be of but little avail. At such a period, the improvement is both slight and evanescent as a rule.

Increase of weight is, however, a very palpable sign, and one which really does associate itself with a feeling of improvement. We have had remarkable instances of this nature in the hospital; but amongst the out-patients I have a young man in whom the total increase was 29 lbs., at the following periods: July 28th, 7 lbs.; Sept. 8th, 16 lbs.; Oct. 13th, 21 lbs.; Dec. 19th, 29 lbs. In his case, however, the disease progressed all the time; for, with the increase of weight, deposit, softening, and a cavity, followed each other in the lung; and, although the patient really looks almost well, both of his lungs are now extensively diseased. It is a disputed point, if arrest of the disease do really attend upon the apparent improvement in the general symptoms from the use of oils; and no doubt the cases must differ much amongst themselves, whether as to the stage, the constitution, or the circumstances of the individual.

I cannot form any opinion as to the value of Dr. Bennett's theory of the action of the oil; viz., the deficiency of fat in the chyle, or as to the efficiency of cod-liver oil; because, in some cases of phthisis, the acid secretions of the alimentary canal interfere with the digestion and absorption of fat. I do not believe that we can attach any real value to the iodine or to the phosphorus; and hence, if there be a value to the general system in the use of the oil, it must, so far as we know, be attributable to the carbon and hydrogen, or to the mechanical action of the particles of oil in the processes of alimentation. On the latter grounds, it is probable that all oils would have the like action, which in phthisis is not the case; and on the former, they should be on an equality, except so far as dose may be concerned. The statement that cod-liver oil is more readily assimilated than any other kind of fat, is an assertion for

which there is not sufficient proof; for, on the one hand, I found that patients who have discontinued the use of fat food have been able to resume it by varying its form, quality, and cooking; and, on the other, that a very large proportion of those to whom cod-liver oil is prescribed are unable to take it either temporarily or permanently.

On the whole, if the benefit be not restricted to a small section of the cases, and if it do not chiefly depend upon mental influences, it is probable that we must either know more of phthisis, or of the composition and action of oils, before we can offer a rational explanation. There is, however, one physiological fact to which I would ask attention; viz., that, during sleep, the rate of respiration in phthisis is greatly increased, sometimes to so much as the double of the ordinary rate—a circumstance quite opposed to health: and hence, as, during a large part of the twenty-four hours, the consumption of carbon and oxygen must be greatly increased, an unusual supply of the former may be imperatively called for. This appears to me to be a fair explanation, so far as it goes; and hence, at and in the night, the oil may be of value. If this were at all universally admitted, we might probably find that a limitation of the time of exhibition to those periods would include all that could be of service. Acting on this opinion, I have commonly directed a dose to be taken the last thing at night, and have presumed that the more frequent respiration in sleep and the exhibition of the oil both tended to sustain the animal heat under circumstances unfavourable for its production.

I know that an increase in the quantity of blood-corpuscles has been attributed to the use of the oil, and such may be the case; but it is improbable that this should be its usual or chief mode of action, since the improvement from the oil is commonly found in the early condition of the disease, when there is no fixed alteration in the composition of the blood; and in the latter stages of colliquatine sweats, when the blood has become really poor, the oil can effect but little good. When, however, the increase in the quantity of the red corpuscles does occur, it must be a secondary effect, and result from the improvement of the assimilative functions.

So far I have considered the influence of cod-liver oil as acting through the system; but I believe there to be a local action which is oftentimes of value. A large proportion of patients who conceive themselves to have been benefited by it, mention a soothing influence which they have experienced about the sternum, and a "softening" of the cough. This statement is so frequently made, that I cannot but consider that there is some truth in it. It may be explained by a local influence, as the oil passes over the irritable or perhaps desquamated mucous membrane of the pharynx, soothing that membrane, and for the time lessening the irritating influence of air. It may thus be readily understood how it will relieve the cough and irritation in the throat; but it is probable that, so far, any oil or fat, of the same degree of fluidity, would have a similar effect. I have also felt a general soothing influence, as of a mild narcotic, after having taken cod-liver oil experimentally, so much so as to induce me to consider that further inquiries in that direction were needed.

The practical conclusion which I wish to draw is this, that no theory has been propounded which can apply universally to all the heterogeneous classes of cases which are said to have been benefited by the oil; and, as there are many patients who cannot take it, and many others to whom it is not beneficial, it would be more philosophical to restrict its use to such cases as are amenable to any theory which, in the present unsettled state of the question, any one may prefer. To have no theory, or to administer the oil to cases to which our theory does not apply, must surely be empirical and indefensible. A universal remedy must surely involve a fallacy.

I am equally at a loss to determine the dose which is really the best for our purpose, and yet without inducing a waste of the oil. It is well known that the system can digest but a limited quantity of fat in health, and superfluous fat is thrown off by the bowel; hence fat is found in the fæces of all healthy men, in variable quantity. But it is curious to note that, in all wasting diseases, fat in a disproportionate amount is found in the fæces; and yet, in such instances in general, no increased quantity of fat could have been taken in the food. Hence, in phthisis, there must be an unusual disposition to the waste of this substance—a circumstance unfavourable to the exhibition of large doses of the oil. We need a series of investigations which should show the largest dose which could be taken without a waste of the remedy.

In conclusion, I would remark, that the night sweats, which are so often associated with debility and wasting in phthisis, are due to the low state of pulsation, and of all vital actions, which have been proved to occur in the night in phthisis. Hence any remedy which will raise the pulsation at night will arrest or prevent the sweats. Food is thus the most natural remedy; and a large cup of cold tea, with bread and butter, has in my experience been almost invariably efficacious. Milk is no doubt very proper; but it is far less powerful than tea, since, under any circumstances, its influence over both pulsation and respiration is far less than that of tea. Of course it is needful to take away the usual causes of perspiration, viz., feather beds, too much covering, bed curtains, and perhaps bed-fellows; and to have a free admission of cool fresh air into the room. The plan will be far more efficacious with dry than with very moist air, for obvious reasons.

63, Grosvenor Street, February 1857.

Reviews and Notices.

On the Diseases of the Bladder and Prostate Gland. By William Coulson, Surgeon to, and Lecturer on Surgery at, St. Mary's Hospital. Fifth edition. pp. 640. London: Churchill. 1857.

The publication of separate treatises on the disease of an important organ or system has become sanctioned by use; and, in many respects, it is attended by advantages. Amongst works of this kind, the treatise of Mr. Coulson has been long favourably known to the profession. It is written in an unpretending style, and contains the experience of a surgeon who has worked assiduously at his subject for more than a quarter of a century.

Mr. Coulson has adopted the anatomical arrangement as the basis of his work; in other words, he investigates the different kinds of organic lesions which are found in the different tissues of the bladder, describes the symptoms to which these lesions give rise, and explains the various modes of treatment by which their effects may be alleviated or removed. This plan, based on pathological anatomy, is the one adopted by all scientific writers of the present day; but we doubt whether it can be applied with the same effect to the diseases of the bladder, as to those of most of the other important viscera; while there is, to a certain extent, a parallelism between the bladder and the stomach. The bladder is destined to retain the urine for a time, and to expel that fluid at intervals. The contractile action of the bladder is, therefore, intermittent; but it may be increased or diminished by many circumstances not immediately affecting the organ. When the contractile power of the bladder is inordinately increased, the organ is no longer able to retain the urine, and incontinence ensues; when this power is disordered, the bladder is unable to expel the urine in a proper manner, and retention is the result. Experience teaches that incontinence and retention of urine arise more frequently from lesions and disorders not immediately involving the bladder than from organic disease or nervous disorder of the reservoir itself; and hence a very limited view of vesical affections is obtained, if we merely regard the organ apparently suffering and its pathological changes. Numerous illustrations of this principle might be furnished. The author's plan has been executed in as complete a manner as it admitted, and many valuable additions have been made to the last edition. The supplementary matter is mainly of a practical character, the author having preferred to avoid all speculative considerations, and to confine himself strictly to symptoms and treatment.

Tumours of the bladder are distinguished into malignant and non-malignant. Under the former head, Mr. Coulson describes scirrhus and medullary cancer, which latter is subdivided into villous cancer and encephaloid.

Scirrhus of the bladder, as our readers are aware, is a very rare disease. The author has never met with a case of it. On

the other hand, he relates from his own practice several cases of villous cancer of the bladder, the symptoms and diagnosis of which are carefully discussed. "The symptoms of malignant disease of the bladder," according to Mr. Coulson, "may set in suddenly, or may be developed in a gradual manner." In about one-quarter of the cases, the disease will be found to manifest itself suddenly—that is to say, without any premonitory symptoms.

"In some cases, the first symptom is a sudden and perhaps copious discharge of blood from the urethra; this is soon followed by pain in the bladder and difficulty of making water. In other cases, the disease commences with a sudden attack of severe pain either in the region of the bladder or in the back and loins; here, also, the first symptom is soon followed by hæmaturia and painful micturition."

In the second and most frequent class of cases—

"The disease begins with dull pain about the region of the bladder, or in the loins and hip. It may thus continue for several months, with alternations of severity and relief. The character of the pain presents nothing of a special kind. In the early stages of the complaint, the patients usually refer merely to varieties in its intensity, and rarely, if ever, speak of it as being of the lancinating darting kind."

The seat of the pain is seldom well defined at first; and in no case has the peculiar pain of the glans penis, so characteristic of stone, been observed. This remark, of course, applies to cases which are not complicated by the presence of stone in the bladder; for, as Mr. Coulson justly observes, the symptoms under such circumstances become extremely equivocal, and it is impossible to refer them to one source rather than to another.

Next to the pain, the chief symptoms of malignant disease of the bladder are, irritability of the organ, impediment to the excretion of urine, and hæmorrhage. The irritable condition of the organ usually sets in at an early stage of the disease, and continues to increase until its termination. Hæmorrhage from the bladder is also a constant symptom—at least, in cases of villous cancer; and this can be readily understood when we consider the vascular structure of the villous tufts, and the pressure to which they are subject under violent contraction of the bladder. Hence, as Mr. Coulson informs us, "the discharge of blood generally takes place at the same time as the evacuation of the urine"; though in other cases the blood comes away after the bladder has been naturally or artificially evacuated; and our author regards this latter circumstance as peculiarly worthy of attention. If it can be determined that the blood does not come from the kidneys, if there be no calculus, and the bladder be free from ulceration, the repeated hæmorrhage is almost diagnostic of malignant disease. A remarkable circumstance pointed out by the author, is the fact that, even in protracted cases, the patient seldom exhibits the peculiar countenance which is said to characterise a malignant diathesis. But the rational symptoms are insufficient for establishing a diagnosis. They afford strong presumption, not certainty; inasmuch as they may attend other lesions of the bladder. A careful examination of the organ must be made, a few ounces of tepid water having been previously injected. This examination will enable the surgeon to determine, in the first place, the absence of certain lesions which give rise to symptoms analogous to those of vesical tumour; it will reveal the presence of a soft tumour in the bladder; and, this being determined, the malignant or non-malignant nature of the tumour must be diagnosed from the presence or absence of cancer-cells in the urine. Although the presence of these cells indicates the existence of malignant disease, their absence does not necessarily imply the contrary. We believe, however, with the author, that if the urine passed during a severe paroxysm, in cases of villous tumour, be examined under the microscope, it will generally be found to contain cancer-cells.

We have noticed this subject at some length, because it is an interesting one, and very fully handled in the present edition of Mr. Coulson's work.

Another subject, examined with much care and copiously illustrated, is that of lithotrity, to which Chapter xx is devoted. Mr. Coulson has long been known as a successful lithotomist; yet, in the present edition of his work, he gives the precedence to lithotrity—and perhaps not without reason. This practice has for some time been gaining ground, and evidently admits of further improvement. The prejudices against which it had to struggle in this country are now well nigh abandoned. Our elder practitioners cease to denounce it; while the younger members of the profession are cultivating its practice with daily increasing success. For much of this, we are indebted to Sir Benjamin Brodie. His recent paper on this subject is a valuable contribution, and enables us to contrast lithotrity and lithotomy in a manner the fairness of which few will question.

The late Mr. Liston was the best of lithotomists of modern times: perhaps the most successful operator for stone since the days of Cheselden and Martineau. He tells us himself that he operated in one hundred and fifteen cases of stone in the bladder, and lost sixteen patients. Sir Benjamin Brodie operated by crushing in one hundred and fifteen cases of stone, and he lost only nine patients. Hence, for every patient lost by lithotrity, even Liston lost two by lithotomy. The conclusion appears irresistible.

The question whether chloroform should be employed during the operation of lithotrity, has been much discussed; and different opinions are entertained respecting it. Sir Benjamin Brodie and M. Civiale are unfavourable to the use of chloroform; and much may be said in support of their views. Mr. Coulson also was at one time disinclined to render the patient insensible; but he now informs us "that a more enlarged experience has induced him to modify this opinion considerably; though he still holds to it as a general rule." Thus children are so unmanageable, that it will generally be necessary to place them under the influence of chloroform when submitted to lithotrity. In other cases, it may be expedient to have recourse to this agent on account of the nervous temperament of the patient and his incapability of bearing the least pain. During the examination of the bladder, for the purpose of ascertaining whether any fragments remain, the use of chloroform is also attended with manifest advantage. To this we would add, that an irritable condition of the bladder, not depending on any serious organic change, may require to be appeased by the aid of chloroform; but, as a general rule, the surgeon had better avoid anæsthetics, unless he has full confidence in his own tact and capability for performing the operation. When the surgeon is compelled to feel his way hesitatingly, the patient should preserve the power of feeling.

The directions given by the author for seeking and seizing the stone, appear to be the same as those of M. Civiale; but they differ in several points from the rules laid down by Sir Benjamin Brodie and many operators in this country. Indeed, we can perceive that Mr. Coulson is *nullius verbis addictus*, but freely expresses independent opinions whenever they are supported by his own experience. Thus, most operators are afraid to attack hard calculi, especially if they be of any size; but the author thinks that with improved instruments any calculus may be broken up, provided it can be properly seized. There can be no doubt, as we have already said, but that lithotrity is progressing on this, as on many other points. For example, we perceive that M. Guillon has recently crushed, in five sittings, a hard calculus, which weighed five ounces and a quarter, and was from six to seven inches in circumference. The cure being complete. Not many years ago, such a case as this would have been at once rejected by the lithotritist, and in all probability would have proved fatal under the hands of the lithotomist.

The Chapter on Lithotomy and Lithotrity in the Female is complete and interesting. Some valuable data will also be found in the Chapter on Statistics.

The Section on Disease of the Prostate Gland is less complete than the portion devoted to the bladder. Several points require more development.

The chapters, however, contain a fair summary of the present state of our knowledge on this subject.

On the whole, we can strongly recommend the present edition of the treatise on the bladder to the favourable consideration of our readers. It is an excellent practical work, with fewer deficiencies, and a greater fund of really useful research, than works of the kind ordinarily contain.

British Medical Journal.

SATURDAY, MARCH 7th, 1857.

AN OFFICER OF HEALTH FOR THE ARMY.

Before the rude lesson taught us by the Crimean campaign fades from the minds of the authorities, it will be as well, perhaps, if we remind them that no step has yet been taken which will prevent, as far as human foresight and care are concerned, the repetition of the errors of omission as well as of commission then perpetrated. Before our army had seen the enemy, thousands had lost their lives in the pestilential neighbourhood of Varna; and those who survived to make the ensuing campaign, did so with the poison of malaria in their veins. The whole army of splendid Englishmen who left these shores, we deliberately assert, was poisoned by the ignorance of its commanding officers before it touched the ground of the enemy at Old Fort, and the wonder still is to any medical man who made the campaign, how they managed to fight so well at the Alma as they did. Upon the remaining career of that gallant band, we do not wish to dwell: suffice it to say that 30,300 of them either perished or were disabled—the greater proportion of the slaughter being attributable, not to the keen swords or swift Minié bullets of the Russians, but to the want of proper sanitary precautions in the chiefs. Thus it has ever been with the British army. The medical arrangements preparatory to the Walcheren campaign were directed by a successful Weymouth apothecary, Sir Lucas Pepys, who was not ashamed to declare that "he knew nothing of the diseases of soldiers, except what he had read in Pringle's book!" In the last Burmese war, we lost 73 per cent. of our force principally through scorbutic diseases, brought on by salt beef and pork, and decayed biscuit! The commonest precautions would have prevented such serious blunders as these, paid for principally in the blood of the Crimean soldier; but those who could and did suggest these precautions had no rank and authority to make themselves listened to, and, as a consequence, the hygienic condition of the army has always been looked upon as a thing beneath the notice of generals. Before public attention was called to the condition of our troops, it was possible to pursue an old system which so ruthlessly sacrificed their lives; but since it has been found necessary to treat them liberally, and to have them trained at great expense, the mere money value of their existence is a consideration which the War Office can no longer look over. We cannot train private Jones to the use of the Minié rifle without rendering him a skilled workman, and with skilled workmen the War Office can no more dare to play at ducks and drakes than they could afford to play at football with chronometers. We must reform the medical department of the army in order to keep pace with the condition of the army itself.

We owe to Mr. Martin the very valuable suggestion of the necessity of appointing a Medical Officer of Health for the army whilst in active service—a field inspector, in fact, whose duty it shall be to adapt his intelligence to the ever shifting necessities of war, and whose resources shall enable him to decide upon all questions relative to the health of the force to which he is attached. Such an officer, attached to the quartermaster-general in the field, and always in advance with him, should, according to Mr. Martin (and common-sense endorses the opinion), be only second in military rank to the head of his department; at the same time, his authority as field inspector should be supreme.

We shall be told, we know, that there is always a medical officer on the staff, and that there is no necessity for the creation of the new appointment; but the answer is simple. The staff medical officer has neither the status nor the training necessary to give authority to his opinions. If such a person were to dare to remonstrate with the general for placing the troops in some deadly hollow, quite irrespective of all strategical reasons, he would in all probability be answered, as a medical officer was once answered before, who had ventured to give good advice—namely, "Medical opinions are all very well when they are asked for"! Such an answer never could be returned to a field inspector, speaking with weight and authority. His advice would necessarily be given in writing, and the general would have to record his reason for neglecting it. With such a safeguard against the exercise of arbitrary power, we may be pretty sure that a general would not venture to resort to the snubbing process, now so ordinarily employed to get rid of those who tell unpalatable truths.

It is clear, however, that the whole value of the officer of health would depend upon his personal knowledge and character. He should be versed in the sciences of physical geography, topography, geology, and meteorology; he should have a general knowledge of the country in which the force is operating—its general features, its degree of cultivation, the arrangement of its cities, towns, and villages, the quality of water in its wells and running streams; he should be, as far as possible, the epitome of a well ordered medical council at home, from which he should receive all his orders, excepting those arising immediately out of the daily emergencies of the campaign. Together with this knowledge, he should possess a determined will. We shall be asked, Where shall we find this model man? and our answer is, that perhaps he does not at present exist; but there is stuff enough in Englishmen to make many such, if properly selected and trained to perform these special duties. In time of peace, the army officer of health would perform duties at home somewhat analogous to those of that functionary in the civil service. He would refer to and consult with the military authorities in every matter relating to the position, construction, and arrangement of barracks and hospitals; his office would contain, as Mr. Martin has suggested, patterns or models of these structures, so that when new ones require to be erected, the latest and best information with respect to them should be forthcoming. We have, it is true, inspectors and

deputy-inspectors of hospitals; but their duties, as at present performed, are chiefly retrospective. Now, what the army requires is a man who will think *forward*, who will make the prevention of disease in the army the aim of his life, and not content himself with routine measures for remedying the evil when it is done. We trust that the profession and the public will force this valuable suggestion of Mr. Martin's upon the attention of the War-office, and we also think that the valuable experience of our respected Associate, gained by hard service in actual warfare, will not be overlooked when Governments have been persuaded to turn their attention to the subject. There still remains another branch of the great subject of preventive medicine as applicable to the two services; this subject is, however, so important, that we shall refer to it in a special article.

POOR-LAW MEDICAL REFORM: AGGREGATE MEETING OF MEDICAL STUDENTS.

With much satisfaction we call attention to the fact that the medical students of England will hold an aggregate meeting, in support of Poor-law Medical Reform, at St. Martin's Hall, on Thursday next, March 12th, at half-past seven p.m. A. H. Layard, Esq., M.P., will take the chair. It is proposed to petition Parliament for an improvement in the system of poor-law medical relief, and to adopt a series of resolutions bearing on the subject. The resolutions, of which, as well as of the petition, a printed copy has been forwarded to us, are at once comprehensive, firm, and moderate in language; and we most sincerely trust that they will be unanimously passed. When the meeting has been held, we shall take an early opportunity of noticing the proceedings. In the mean time, the students have our best wishes. The expression of an intention on the part of students to hold an aggregate meeting might, perchance, tempt one to give some good advice to them; to men, however, who have shewn so much both of energy and of moderation as our young friends are now exhibiting in regard to the present matter, any assumption of superior judgment on our part would almost be an insult. All that we will say to them at present is, in the words of the old Roman,—

"Macte novâ virtute, puer; sic itur ad astra."

THE WEEK.

As far as we are aware, snowball affrays in Edinburgh have not occurred for some years; and the great battle of 1838 still maintains its historic preeminence. Last week, however, an opportunity was offered of showing that the ancient spirit is not yet extinct, by the wisely stimulating conduct of some of the advocates of the total suppression of traffic in alcoholic liquors—*i. e.*, of the Maine Liquor Law. The *Times* of Monday last contains a long account of the proceedings. Professor Laycock, having been requested by the Edinburgh Total Abstinence Society to deliver two lectures on the Physiology of Drunkenness, took the opportunity of expressing himself in favour of moderation and moral suasion, and in opposition to suppression and legal coercion. The second of these lectures, although the chairman had stated that Dr. Laycock had been invited to express his own unfettered opinions, seems to have been rather ungraciously received by some of the audience; and a lecture in reply was subsequently announced by means of placards headed "Dr. Laycock dissected". The students, not willing to allow the insult to their professor to pass unnoticed, crowded the lecture-room, and entirely prevented the delivery of the lecture. Afterwards, articles denunciatory of their conduct having appeared in some of the Edinburgh papers, the students showed their displeasure by publicly burning copies of the obnoxious periodicals. Some disturbance between the students, police, and mob, followed, and appeared likely to continue. On the following day, however, through the persuasion of Dr. Laycock, the students were induced to refrain from any further demonstrations, beyond that of demanding from the chairman of the last meeting an apology for the insult to the professor, and of complaining to the Lord Provost of the manner in which they had been used by the police. The mob, however, continued to produce much disturbance, breaking lamps and windows, etc.; several persons were apprehended, and the disturbance was quelled by the police.

The *Times* speaks of the "evil example" set by the students. Now, however much occurrences of the kind are to be regretted, it is pleasing to see that the Edinburgh students regard the honour of their professors as identical with their own. Their indignation at what they regarded as an insult to Dr. Laycock has shown them to possess "pluck": whether the means they adopted for showing their indignation were the most judicious, is another question. That they cannot have acted from the mere love of mischief, is apparent from the readiness with which they deferred to the recommendations of Dr. Laycock and the Lord Provost to desist from further agitation.

One of our associates has forwarded to us an extract from the *Banbury Guardian* of February 26th, consisting of a letter from Mr. Richard Grimbly, late medical officer to the Banbury District. The purport of the communication is, that Mr. Grimbly applied, on January 14th, to the Board of Guardians for an increase of salary; that, instead of making a direct reply, the guardians brought against him, by dint of stretching a form of words to its utmost extent, a frivolous charge of neglecting a certain patient; and that Mr. Grimbly, unable to obtain a hearing for himself, and knowing the impossibility of carrying out the requirements of the Board, at once tendered his resignation. His medical brethren in Banbury have forwarded to him the following gratifying testimonial:

"We, the undersigned medical practitioners of Banbury, having heard the statement of Mr. Richard Grimbly, medical officer of the union, in reference to a frivolous charge of neglect made at the Board of Guardians this day, beg to offer to him our sympathy on the harsh and severe treatment he has received from them, and to express our favourable opinion of the uniform attention he has paid to his duties for many years.

"Banbury, February 19th, 1857.

"Signed:—Shearman Chesterman, Wm. T. Douglas, Arthur B. Rye, R. S. Wise, John Griffin, John F. Smiles, Edward Morris."

With much satisfaction we learn from our correspondent that all the medical men in Banbury have pledged themselves neither to accept the vacant appointment, nor to hold profes-

sional communication with any stranger who might be induced to take it.

Mr. George Greaves, medical officer of the Chorlton Union, seems also to be in some danger from his Board of Guardians, on account of certain representations made by him with regard to the quality of the food of the inmates of the workhouse, which have not been altogether consonant with the opinions of the guardians. As Mr. Greaves has determined to appeal to the Poor-Law Board, the subject will probably again come under notice.

The recently published Report of the Society for Relief of Widows and Orphans of Medical Men in London and its Vicinity shows the institution to be in a flourishing condition. During the past year, the funds of the Society have been increased by a legacy of £5,000 from Mr. Thomas Copeland, and by one of £100 from Sir B. F. Outram. The total amount expended by the Society in grants, during sixty-five years, has been £51,087 : 19. The object of the Society is to afford pecuniary relief to the widows and orphans of medical men in London and the neighbourhood, who shall have been members of the Society for two years at the time of their decease. The members pay one guinea as an entrance fee, and a guinea twice a year for twenty-five years; or they may compound for a life-subscription.

The trial of Dr. James Michell Winn, the well-known and respected physician of Finsbury Square, has resulted, as we fully expected it would, in a verdict of acquittal. It will be remembered, that he and his servant were given in charge by a person of the name of Benham, for having attacked and beaten him. It appeared from the evidence, however, that Benham, who rented the upper part of the house, wished to obtain possession of the lease, and in order to do so annoyed Dr. Winn in every conceivable way,—he even went so far as to call him a swindler. Indignant beyond endurance at being thus insulted, he struck this person, who was a much heavier man, it appears, than himself, and the doctor was getting the worst of it, when his servant came to his rescue. A vast number of highly respectable witnesses testified to the mild and gentlemanly habits of Dr. Winn, and the jury by their verdict sufficiently vindicated their opinion that the thrashing he gave the prosecutor was heartily deserved.

The death of Dr. Hume has caused a vacancy in the list of Medical Commissioners in Lunacy, which, we have good reason to believe, will be filled by the appointment of Dr. Nairne, of St. George's Hospital.

The defeat of the Ministry on the China question on Tuesday night, will have the inevitable effect of delaying the progress of the Medical Bill. Much business of a pressing public nature will, we fear, prevent its introduction before the dissolution of Parliament, and the new House will not, in all probability, meet before the end of May. It remains to be seen whether that period will not be too late for its introduction, with any chance of carrying it through Parliament this year. We trust, however, that Mr. Headlam, if he be re-elected, will bring it under discussion as soon as possible, in the hope that some measure calculated to satisfy the great body of the profession will be finally sanctioned, before our senators are off to the moors.

Association Intelligence.

METROPOLITAN COUNTIES BRANCH: ADJOURNED GENERAL MEETING.

AN adjourned General Meeting of the Metropolitan Counties Branch was holden at 37, Soho Square, on Tuesday, March 3rd, at 4 P.M.: GEORGE WEBSTER, M.D., President, in the chair.

EXPLANATION OF RESOLUTION.

Dr. O. WARD (Honorary Secretary) read a letter from Dr. S. Griffith, expressing his disapproval of the (supposed) intended advocacy by the Branch of compulsory residence in London, in the case of candidates for the fellowship of the College of Surgeons. Dr. Ward explained that the intention of the resolution was precisely opposite to that in which it had been interpreted by Dr. Griffith—that the Branch were desirous that the obligation (at present existing) on all candidates for the fellowship to study during three years in London, should be removed.

MEDICAL REFORM.

A letter was read from Dr. LANKESTER, regretting his inability to be present on account of illness. In his absence,

Mr. PROPERT moved—

"That this Meeting rejoices at the near prospect of the settlement of the question of Medical Reform, by the adoption, on the part of the British Medical Corporations, of the principal details of the Medical Reform Bill proposed by the British Medical Association; and would heartily approve of the proposal of the Medical Reform Committee of the Association, that one-third at least of the medical council constituted under the proposed Bill, should be chosen by the Government from among those members of the profession not constituting the Governing Bodies of the Corporations and Universities; and that the Branch strongly urges upon the Association the necessity of seeing that this arrangement is fully carried out."

Mr. LORD seconded the resolution.

Dr. MURPHY proposed as an amendment—

"That the discussion of Dr. Lankester's motion be adjourned until Mr. Headlam's Bill be published."

Dr. JAMES Bird seconded the amendment.

After some discussion, in which Dr. Burnett, Mr. Charles, Dr. Edward Smith, Dr. Beck, Dr. Stewart, and the President, took part, the amendment was carried.

It was then agreed also to adjourn the discussion on the second resolution, viz.

"That this Branch do strongly recommend the Government to grant a new Charter to the College of Surgeons, on a more liberal basis as regards the elective franchise, and the residence in London as a qualification for the fellowship."

SALE OF POISONS.

Mr. LORD proposed—

"That this Branch do petition Parliament to pass a Bill for the regulation or prevention of the sale of poisons."

Dr. MURPHY seconded the motion, which was carried.

ADMISSION OF NEW MEMBERS.

THE Laws of the BRITISH MEDICAL ASSOCIATION, with regard to the admission of new members, are the following:—

Any qualified medical practitioner, not disqualified by any bye-law, who shall be recommended as eligible by any three members, shall be admitted a member at any time by the Committee of Council, or by the Council of any Branch.

The subscription to the Association shall be One Guinea annually; and each member on paying his subscription shall be entitled to receive the publications of the Association of the current year. The subscription shall date from the 1st January in each year.

The names of new members should be forwarded to the Secretary, Dr. P. H. WILLIAMS, Worcester; or to any of the Secretaries of the Branches.

Reports of Societies.

MEDICAL SOCIETY OF LONDON.

Saturday, January 31st, 1857.

W. D. Chowne, M.D., President, in the Chair.

CASE OF IMPERFORATE ANUS. BY W. H. WILLSHIRE, M.D.

The case was that of a new-born child, in which the descending colon and sigmoid flexure ended in the form of a blind sac, attached by cellular tissue to the sacrum. The rectum was pervious from the anus for the distance of an inch and a half. The child lived six days. The tubuli uriniferi of the kidney were loaded with urates.

REMOVAL OF NEEDLES FROM THE BODY. HOW ARE THEY INTRODUCED? BY VICTOR DE MÉRIC, ESQ.

Mr. de Méric, after some remarks on the curious assertions sometimes made in regard to the introduction of large numbers of needles into the body, related the following case. A child, aged 2 years, was brought into the German Hospital, who, two or three days previously had been playing on the hearth-rug, and since that time had been unable to walk on the left foot. It cried much when the heel was taken hold of. No redness nor any sign of injury could be detected; but, as a matter of safety, the leg was put up in a splint. After some days, on looking at the foot, Mr. de Méric perceived on the plantar aspect of the heel a black spot; this was ascertained to be the head of a needle, which had most probably entered the leg by accident.

Mr. Jabez Hogg and Mr. Stedman alluded to the case of the late Dr. Rowland, in whom a needle entered into his leg while he was putting on a boot, and was some time afterwards detected and withdrawn at the plantar aspect of the heel by means of a powerful magnet.

ON STERILITY: ITS CAUSES AND TREATMENT. BY I. B. BROWN, ESQ.

Mr. Brown, after some prefatory remarks, enumerated the following causes of sterility:—

1. Absence of uterus and ovaries.
2. Presence of uterus, but disease of ovaries.
3. Atrophy of uterus and ovaries.
4. Disease of uterus and of Fallopian tubes—viz.: *a*. Hypertrophy; *b*. Inflammation; *c*. Fibrous tumour; *d*. Cancer; *e*. Polypus; *f*. Neuralgia; *g*. Ulceration.
5. Diseases of vagina—viz.: *a*. Cancer; *b*. Inflammation; *c*. Leucorrhœa: *α*. with acid secretion, *β*. with alkaline secretion.
6. Imperforate hymen.
7. Contracted os vagina.
8. Contracted os or cervix uteri—from: *a*. Contortion; *b*. Inflammation of mucous membrane; *c*. Caustic applications.
9. Dysmenorrhœa—*a*. Spasmodic; *b*. Mechanical.
10. Amenorrhœa.
11. Menorrhagia—from: *a*. Anæmia; *b*. Plethora.
12. Diseases of rectum—viz.: *a*. Hæmorrhoids (bleeding); *b*. Fistula; *c*. Fissure; *d*. Prolapsus ani; *e*. Scirrhus; *f*. Ascarides.
13. Vascular tumour of meatus urinarius.
14. Excessive sexual intercourse.
15. Want of mutual affection.
16. Loathing on the part of woman.
17. Secondary syphilis.

In the sections now enumerated were comprised most, if not all, the causes of sterility in the female which occur in practice. Mr. Brown briefly reviewed them with reference to their nature and curability.

The following causes may fairly be considered incurable—viz.: Absence of uterus and ovaries; Disease of ovaries; Atrophy of uterus and ovaries; Cancer of uterus, with or without that of the Fallopian tubes; and cancer of the vagina.

The remaining sections may be thrown into three classes, according as the causes are mechanical and local, or constitutional and general, or sympathetic or reflex. The mechanical causes are comprehended in sections 6, 7, 8, and in 9 in part; and to these may be added an occasional cause, closure of the Fallopian tubes. The constitutional causes operate at large through the general health, and are included under sections 10, 11, 14, 15, 17, and 9 in part. The next class of cases, termed by Mr. Brown sympathetic or reflex, were comprised in sections 12 and 13, and in 4 and 5 in part. As it would be impossible to discuss the mode of action of the numerous causes, and to examine their relative extent and force of operation, Mr. Brown restricted his observations to those comprised in sections 9 and 12, viz., dysmenorrhœa and diseases of the rectum. He believed that diseases of the rectum, as productive of sterility, had not previously been put forward; however, experience and observations had proved to him that he was right in advancing them under this aspect.

Dysmenorrhœa might be either mechanical or spasmodic; and numerous expedients had been resorted to for its cure, such are catheterism, caustics, sponge-tents, and similar mechanical contrivances, the object being to overcome stricture of the os and cervix uteri. Mr. Brown could adduce several instances where the protracted use of the metallic bougies, or of ordinary elastic bougies, had been successful. He called attention to a set of instruments which he had contrived to dilate the os and cervix uteri where this operation was called for. He had made use of the suggestions of Mr. Thomas Wakley for the treatment of stricture of the urethra. Mr. Brown introduced a long stilette into the os uteri through the speculum, and over that he passed the smallest sized elastic tube and allowed it to remain for a longer or shorter period according to the pain produced. Cases which presented almost insuperable difficulties to dilatation readily yield under this simple contrivance without bleeding or laceration. The most advantageous period for the introduction of the instrument was immediately after the secession of the catamenia, before the canal had returned to its usual size. Mr. Brown had never seen the necessity for the introduction of caustics into the cervix for the purpose of dilatation. Many cases had come under his notice, where partial occlusion of the os and cervix had been the result of their use.

Mr. Brown then proceeded to speak of diseases of the rectum as causes of sterility. He referred to the general law of the animal economy, that any irregularity or interference with the functional action of any one part of the body affects more or less the whole body. If this law pertain to the body generally, much more must it pertain to the female organs of generation, where the slightest deviation from normal functional action must materially interfere with the delicate physiological process of impregnation and the contiguous organs. Both the rectum and uterus are supplied with blood from the internal iliac artery and with nervous influence from the sacral plexus; and therefore functional derangement in the one part or organ must interfere with the other. For instance, a female is suffering from bleeding hæmorrhoids. At the menstrual epoch there is an increased supply to the hæmorrhoidal vessels and consequently a diminished supply to the uterus, because only a sufficient supply for the uterine function is sent down. In prolapsus ani, also, there is always some loss of blood at each defecation, and a greater loss at the period of the menstrual epoch. In a patient suffering from fistula or fissure, there is constantly more or less pain in the uterus; and consequently it is always under a state of irritation which renders it unfit for the performance of its duties. He had seen many cases of patients who had been treated for months and years for uterine inflammation with leeches, caustics, etc., where he had discovered a long standing fissure of the bowel, which had been the sole exciting cause of the uterine affection.

Saturday, February 7th, 1857.

W. D. Chowne, M.D., President, in the Chair.

THE NECROSIS OF CANCER. BY J. M. MOULLIN, ESQ.

Mr. Moullin brought before the Society two cancerous tumours of the breast, which had been enucleated by the application of chloride of zinc. One was of eight years, the other of twenty years standing. Both these cases were patients at the Westbourne Dispensary under Mr. Moullin. The chloride of zinc was applied in the following manner:—The integuments covering the entire tumour having been previously destroyed by the application of nitric acid, chloride of zinc in the form of thin paste, spread upon linen, was applied over the whole destroyed surface, and covered with cotton, which was allowed to remain till next day. The dressing being removed, incisions were now made to the depth of the destroyed parts, about one-eighth of an inch, and one-third of an inch apart from each other, causing no pain. The chloride of zinc paste, now spread upon strips of linen, was inserted in each incision, and covered over with cotton. One hour after the dressing the patient began to feel a sensation of heat in the part, which lasted for three or four hours, not at any time amounting to

pain. She slept well, and next day the process was repeated, and continued for fifteen successive mornings, when the whole tumour was destroyed. Separation now commenced, and on the thirty-third day from the first application the tumour fell out, leaving a perfectly healthy surface, which has gradually gone on healing, and is now quite well. The history of each case is much the same, except that, in the second, there was a large fungous growth on the upper part of the breast. This case was also completely destroyed after fourteen dressings, and enucleated in forty days, having the same healthy appearance as the former, and progressing equally well. Two other cases are now under treatment, the result of which, with several others, will form the subject of a paper, to be brought before the Society at a future period. The first case mentioned was dressed daily by Mr. Haviland, who assisted Mr. Moullin.

ANOMALOUS DISEASE OF THE CERVIX UTERI. BY J. M. WINN, M.D.

The patient was a young married lady, who suffered after her last confinement from what appears to have been congestion and morbid sensibility of the uterus. For this complaint, it seems, she had been subjected to repeated cauterisations of the cervix uteri. The result of this treatment has been a dilated and inflamed condition of the cervix. The remarkable feature of the case was, that the patient passed daily, and only once daily, accompanied by considerable pain, a small muco-albuminous clot. There was no leucorrhœa, but the general health had materially suffered. Under the use of tonics and the local application of powdered alum the case had improved. Dr. WINN, however, feared that an obstinate disease had been produced, which would take a long period for its removal.

CONCENTRATED LIQUOR CALCIS. BY W. CAMPS, M.D.

The fluid was prepared by Mr. Bastick, and possessed the following advantages:—It permits the internal administration and external use of lime in solution, without the necessity of employing an inconveniently large quantity of fluid. It is more portable, and more free from decomposition when kept, than the ordinary liquor calcis. Being sixteen times as strong as the liquor calcis of the Pharmacopœia, it may be diluted to any required strength.

CANCER OF THE FOREARM. BY T. W. COOKE, ESQ.

Mr. WEEDON COOKE exhibited the arm of a woman, aged sixty-five, which he had amputated a week previously for cancer, involving the muscles and bones. The patient was doing well. He advocated the plan of proceeding in some cases, and mentioned one instance in which he had, five years since, removed an extremity of a woman affected with cancer, of the age of seventy-five. She was still alive and well.

THE SECONDARY ERUPTION FOLLOWING VACCINATION. BY GEORGE ROSS, ESQ.

Mr. Ross commenced by making some remarks on the obscurity of the subject of his paper, and on the contrariety of the opinions held regarding it. He alluded especially to the statement made by Dr. Seaton in his paper published in the *Journal of Public Health*, and of which an abstract was given in the BRITISH MEDICAL JOURNAL for January 31st. He then proceeded to lay down the following propositions:

1st. That there are various forms of eruptive disease consecutive to and caused by vaccination.

2nd. That these eruptions appear at definite periods, and are subordinate to the specific laws of the vaccinious disease.

3rd. That these eruptions are not prejudicial to the person vaccinated, but are rather evidences of the complete impregnation of the system, and of the protective efficacy of the act of vaccination.

Notwithstanding the assertion that vaccination does not cause consecutive disease, the occurrence of such disease has been frequently noticed by medical practitioners. Most works on Diseases of the Skin have some reference to such affections; but there is not, however, any methodical analysis on record of such maladies, and they have been regarded rather as unimportant casualties than as legitimate sequences of vaccination.

A few years ago, in conducting some inquiries into the frequency with which eruptive disease consecutive to vaccination occurred, Mr. Ross observed that such cases as at first fell under his eye manifested secondary cutaneous symptoms on a particular day. Continued observation detected considerable deviations; but in time he found that the deviations, though wide as regarded periods, were so few in number, that they admitted of a ready generalisation. The secondary eruptions differed more in their character than in the periods of their appearance; nevertheless there was sufficient collateral evidence to prove that they were all due to the same cause. The whole number of secondary eruptions noticed by him during the period whilst he was conducting his inquiries was nineteen, and of these the specific character was recorded in eleven; the others were adverted to in general terms as "secondary eruption;" but Mr. Ross believed that the greater number, or the whole of them, were of the vesicular type. Of the eleven one was a transient exanthem, three were papular, and seven vesicular. The vesicular eruptions varied much in character, sometimes being as small as millet-seeds, and few in number; at other times as large as a crown-piece, and looking as if one vesicle was comprised within the circle of another. The size of the eruption was frequently that of the cow-pock at the eighth day, which indeed it very much resembled, being a vesicle with a small central depression and circumferential redness. These eruptions were always preceded by fever, which was proportioned in degree to the number of vesicles thrown out. This fact proved the constitutional character of the affection. Mr. Ross had several times seen patients suffering from pyrexia and general *malaise* on the day when in other cases an eruption has usually appeared. The pyrexia convinced him that the activity of the virus does not always cease with the drying-up of the pock. Even after the local action has disappeared, there are periodical changes going on in the constitution, of greater or less energy, and manifested by fever and secondary eruptions. In some of the cases the eruption appeared on the tenth day from the day of vaccination; in others on the fifteenth day; whilst in one case the eruption was thrown out on the tenth day: it continued for a few days, then disappeared, and was observed again on the fifteenth day. In other instances the eruption appeared both on the fifteenth and twentieth days, or thereabouts. These cases further show the periodicity of the affection. Much accuracy of observation is required to fix the facts. The surgeon should himself see the eruption, and he will be able to determine, after a very short experience, whether the eruption be one or two days old at the time it comes under his observation. The day on which the accompanying *malaise* occurred must be also taken into consideration. A source of error will be the development of the original pock; for when vaccination is done with dry lymph, the development of the local and constitutional effects will vary from the genuine type, being often two days later than is proper. So frequently does this occur that often surgeons prefer to take matter from a tenth-day pock, it being larger and fuller than the eight-day pock. This is true only when dry lymph has been used, and not always true even in this case. The proper period from which to date the phenomena of vaccination is the formation of the vesicle, the symptoms anterior to this being variable. From the moment, however, that a vesicle is formed, with its attendant constitutional pyrexia, which occurs ordinarily on the fifth day, the phenomena, if the pock be genuine, proceed in regular succession, and may be safely calculated. Hence it would seem that vaccinia, as a disease, is subject to a periodical evolution in the system, which is manifested by a critical eruption on the fifth, tenth, and fifteenth days. Mr. Ross believes that the constitutional effects are not produced so much by the small quantity of lymph inserted under the skin, as by absorption from the pocks; these being not merely final results of certain constitutional actions, as generally supposed, but means of thoroughly impregnating the system with the virus. They are laboratories of lymph rather than mere eliminants of a poison. Hence it is that the security of the system, according to Mr. Marson's observations, is in a direct ratio to the number of pocks induced. If we open a pock with a lancet we can exhaust it of all its lymph; if we wait a little we shall be supplied with a fresh secretion; and so on for an indefinite period so long as the pock maintains its activity. If the pock be not opened we have a right to conclude that the same process of secretion is continually going on, and the excess of lymph instead of being evacuated, as in the former instance, is absorbed into the system. There is no reason to think that absorption does not proceed from the surface of the skin under these circumstances, whilst it is the rule on all other surfaces of the body, whether mucous or serous. In fact the functions of every organ are sustained by a due balance between the processes of secretion and absorption in unintermitting activity. Hence the constitutional pyrexia in vaccination commences with the formation of the vesicle; and hence, too, the number of vesicles is a measure of the immunity conferred.

The frequency of the secondary disease depends upon the

time of year when vaccination is performed. During the summer, when the circulation is hastened, and the functions of the skin are actively performed, the consecutive eruption appears more frequently than in winter, when it is very rare. In consequence of the greater prevalence of the secondary eruption in summer, and the suspicion with which it is viewed by parents, Mr. Ross thinks it best to postpone vaccination as much as possible during June, July, and August.

PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, January 20th, 1857.

Thomas Watson, M.D., President, in the Chair.

A PORTION OF SMALL INTESTINE PASSED PER ANUM, AFTER SYMPTOMS OF OBSTRUCTION. BY JOHN WOOD, ESQ.

This specimen was sent to Mr. Way, house-surgeon to King's College Hospital, by Mr. Ward, of Bodmin, in whose practice the case occurred. The patient was a married female, aged 23, who, six months before, had become subject to severe pains in the loins and abdomen. The case had been mistaken, and treated for disease of the womb. When Mr. Ward saw her, she was much emaciated, with a quick, feeble, and occasionally intermittent pulse, dry, furred tongue, and bowels apt to be, but not completely, constipated, with natural fæces, when acted upon. Micturition was frequent and painful; the urine was slightly albuminous, and contained lithates. She vomited frequently matters not distinctly fæcal, but consisting apparently of partially digested food; the vomiting generally coming on about an hour after eating. She had much griping pain in the bowels, with some pain on pressure over the region of the right kidney. There was no uterine disease, beyond a little thickening of the os. In November last the patient passed the produced portion of small intestine. It was about six or seven inches long, and an inch and a half in diameter, with no valvulæ conniventes, or any evident Peyer's patches, and was probably from the upper part of the ileum. The mesentery was separated close to the gut, and one end of the latter was considerably frayed off. The patient at first went on well, but since then has had a return of the symptoms of intestinal strangulation, with constant vomiting and scanty fluid dejections, arising possibly from contractions of the resulting cicatrix.

SACCULATED ANEURISM OF THE ASCENDING AORTA, FATAL BY RUPTURE INTO THE PERICARDIUM. BY JOHN COCKLE, M.D.

The subject was a robust man, about forty years of age. He had been ill about two years. His early symptoms were cardiac pain, extending up the aorta, and darting through the breast and down the arms; palpitation, with occasional cough and difficulty of lying upon the left side; gradual loss of weight and sallowness of complexion supervened. The only physical sign detected at this period was marked intensification of the second sound of the heart to the right of the sternum. Some months subsequently, in addition to these phenomena, pulsating tumour, with systolic and diastolic impulse, was detected between the second and third right costal cartilages. Compared with the cardiac impulse, sensible retardation of the radial pulse was manifest. No fremitus was felt over the sac, but percussion yielded a dull note. The systolic sound of the heart, heard over the apex, was dull, as also over the sac; the second sound in this latter situation still retaining its unnatural accent. The cardiac impulse was slightly heaving. A few days before the sac gave way, the first sound over the sac changed from a dull sound into one accurately imitated by the crumpling of parchment. Death was instantaneous, in the midst of active duties. A sacculating aneurism of the aorta was found, commencing about one inch and a half above the arterial valves. The sac was bilocular; the common aperture large. One loculus ascended upwards and forwards, its outer surface becoming fused with the sternal periosteum, and partially eroding the bone at its right inner edge. The other loculus extended downwards and backwards, moulding itself upon the cava, and thus preventing serious pressure upon the vessel. From this lower loculus transverse rupture of three-quarters of an inch had suddenly occurred midway between the right auricular appendix and the reflexion of the pericardium, permitting the escape of about twenty-eight ounces of blood into the sac, and thus probably at once arresting the heart's action. The aorta was greatly dilated at its origin, and had undergone extensive degeneration of its inner and middle tissues. The chambers of the heart were in a state of fatty degeneration. Those of the left side were hypertrophied. The right lung was partially adherent to the sac. Traces of old pericarditis existed. The apex of the right lung presented tubercle in a state of obsolescence. The case is also interesting from the rarity of an aneurism with external pulsating tumour bursting into the pericardium. From Dr. Sibson's tables, it has only occurred once in thirty-three cases.

Editor's Letter Box.

THE TOBACCO-PHOBIA.

Letter from T. W. Nunn, Esq.

Sir,—Will you think it impertinent in a humble reader to say that your leading article on the tobacco question does your editorship great credit? It was the "Hold hard! gentlemen, hold hard!" of the judicious master of the hounds, who sees the "field" impelled by the enthusiasm of the moment, or carried by the impetuosity of their steeds, getting a little too close up to be sportsmanlike. I was also delighted with the able letter on the same subject by the translator of Skoda, who threatens John Chinaman with an elbowing in his (tea) chest. *En passant*, Dr. Markham must be a bold man, and confident in his own powers of self-defence, to venture on *stirring up the animosity of a certain tea-drinking class.* He has, nevertheless, a good cause.

Now, sir, it does not appear, from the various letter writers on smoking, that any distinction has been made between pipe smoking and cigar, or cigarette, smoking; but there must be a very great difference, for many who can smoke and enjoy a cigar cannot smoke a pipe without suffering from the specific effect of tobacco. The following solution of this problem is offered.

In the lighted cigar, in consequence of the non-conducting properties of the material, the action of the heat is limited to the incandescent portion, and the fire catches as it were the greater part of the volatile poisonous products before they have time to escape from so warm a neighbourhood, decomposing them into, though more fragrant, equally subtle but less active vapours. Shade of King Jamie! did ever thy phantom nose detect aught acrid in rival presence of a departed cabana? On the other hand, in a lighted pipe, to say nothing of the finely-chopped conditions in which the tobacco matter is used, the clay bowl at some point at a certain distance from the incandescent layer, by its conducting power, affords just that degree of heat which is requisite to distil over the proper essential oil of the plant. Notwithstanding the condensation which takes place in the lower part of the bowl and in the stem of the pipe, a good deal must pass over with the smoke, which is thereby rendered more emetic than that of a cigar. There are numerous contrivances, as you are doubtless aware, for entangling and filtering off the oily, acrid, and too energetic elements of pipe smoke, more or less successful. The above remarks only pretend to compare the cigar with the ordinary clay pipe.

The psychological meaning of the inclination for smoking must be determined before the question dealt with in your leading article can be set at rest in a philosophic manner. Why do people smoke? This query should be answered, and then we might ask,—Does smoking hurt them? I hope, sir, you will continue to keep a logical eye on the progress of this agitation; and that you will rescue it from the miasmatic fog of spurious physiology, morals, manners, and prejudices, in which it is at present involved.

I am, etc., T. W. Nunn.

London, February 28th, 1857.

THE CAUSES OF THE SOUNDS OF THE HEART.

Letter from G. B. Halford, M.D.

Sir,—May I request you to give insertion to the following observations on the remarks of Dr. W. O. Markham, concerning some experiments I had lately the honour of performing at several of the London hospital schools.

The cause of the first sound of the heart has long been a *quæstio vexata* with the profession. I have endeavoured to demonstrate that it depends upon the tension of the auriculo-ventricular valves. My experiment I find quoted, and favourably referred to, in the last number (February 14th) of your Journal, by Mr. Waters, of Liverpool.

Great patience is required in all experimental investigations. It is not always we can succeed in shewing what we desire, as

happened to me at St. Mary's Hospital. I was enabled clearly to demonstrate the movements of the separate parts of the heart and their relations to the pericardium; but, from want of bull-dog forceps to secure the venæ cavæ, and from accidents during the operations, failed in repeating what I have so often done before at St. George's, the Westminster, Liverpool, St. Bartholomew's, and lastly, at the Middlesex Hospitals.

So far then from Dr. Markham being justified in differing "from many others", and thus addressing the profession on a subject of scientific importance, I maintain that being informed as he was of the impossibility of my properly accomplishing what I wished, and being also invited to witness the experiments repeated two days afterwards at the Middlesex Hospital, it would have more become a man of science to have attended a second time, or repeated them himself, before he sat down satisfied with "the positive evidence of his own senses" against "the negative evidence of numbers."

I must ask, therefore, Dr. Markham to repeat the experiment himself, and communicate the result to the profession. I can promise he will be repaid for the trouble. Further, I have performed this experiment many times by night, when all was still, on purpose that I might detect sound, if any were emitted by the contracting ventricle, when the venæ cavæ et pulmonales were compressed, but none was ever heard.

Dr. Markham objects to my experiments, on the score of the animal being subjected "to sudden and violent shocks of the nervous, arterial, and respiratory systems." This objection is of no value, because from the time of Hope to the present day, the sounds have never been affected by opening the thorax; they are heard as clearly as, if not more so than, before the operation; consequently, their causes remain intact. Again, Dr. Markham ought to know that chloroform prevents shock to the nervous system. What he means by "shocks to the arterial and respiratory systems", I do not comprehend. His other objections he will find most ably met in Mr. Waters's Lecture on the Sounds of the Heart, published in the same number of your JOURNAL as his own remarks.

I can well understand Dr. Markham's "continually meeting with facts which seem repugnant to his received theories"; it is because those theories are false. All the difficulty vanishes if we adopt the valvular theory for the production of the heart's sounds. The miserable nonsense there is in some books about less muscle producing greater sound than more, has done much to mislead the profession; something like the celebrated live and dead fish of the Royal Society. Nobody has seemed to ask the simple question—Does it?

Let us endeavour, on the valvular theory, to explain Dr. Markham's first case. "A loud bruit is heard accompanying the first sound at the apex, but no second sound or bruit is audible there. How comes this, when at the same time the second sound is heard loud and clear over the situation of the aortic valves, and loudly intensified, it may be, over the base of the pulmonary artery?"

I can well understand the first sound, depending, as it does, on the tension of the mitral and tricuspid valves, being prolonged into a bruit, and this bruit, the result of disease of these valves, being continued *into the time* of the second sound. Is it surprising then that, the stethoscope being applied at the apex of the heart, the ear should not detect the short and comparatively distant second sound through the prolonged mitral or tricuspid bruit, which is comparatively near, being conducted to the apex of the heart by the chordæ tendineæ, the vibrations of which, equally with the flaps of the valves, assist in the formation of this first sound or unnatural bruit? Reverse the stethoscope to the seat of origin of the second sound, viz., to the base of the heart, and the second sound will, of course, be better heard.

It is useless writing further about morbid sounds, as they never can be described.

I am, etc.,

GEORGE BRITTON HALFORD.

17, Victoria Square, Grosvenor Place, Feb. 1857.

NEW VECTIS: CLAIM OF PRIORITY.

LETTER FROM JAMES OGDEN, M.D.

SIR,—In a recent publication by Dr. Copeman of Norwich, there appears a description of a vectis which he strongly recommends as superior to the forceps, giving cases of its successful application. On reading a review of the article, in *Ranking's Retrospect* for this year, I was struck with the measurements of the instrument being in every direction the same as those of a vectis recommended twenty years ago by me, and which I named the "Tractor Vectis"; this striking similarity varying only in one direction to the extent of one-eighth of an inch, led me to conclude in the first instance that the one described was my instrument, as the following measurement will show.

Dr. Copeman's.	Inches.	*Dr. Ogden's.*	Inches.
Handle	4¼	Handle	4⅜
Blade when straight	8¼	Blade when straight	8
Blade from handle when curved	7¼	Blade from handle when curved	7¼
Across the fenestra	1¼	Across the fenestra	1¼
Widest part across the blade	2¼	Widest part across the blade	2 except ⅛
Inner border of the fenestra	3-10ths	Inner border of the fenestra	3-16ths

Dr. Copeman, however, assures me that he has not seen or even heard of my tractor vectis, and points out a difference in shape in the two instruments, which, on comparing them, I find to exist; the one used by him, according to his letter to me (but not invented by Dr. Copeman), being the old vectis with an increased curve given to it just before the commencement of the fenestra, whilst the instrument invented by me, which I have used more than thirty years, and described seventeen years ago, differs *in toto* from the old vectis in having much more the hook-like shape, and being so completely adapted for traction, that once fixed on the chin or occiput, it is a rare circumstance for it to slip; indeed, I may say, that it is in this particular part in which the difference exists between the two instruments: mine being adapted and formed to fit the chin accurately; and it is chiefly in the shape and peculiar curve, and form, of the fenestra that my claim to originality rests; and no instrument without this peculiar curve can possibly possess tractile power, in cases of impaction, without acting upon the lever principle. I am induced to request a space, in your valuable JOURNAL, for the few remarks which I have to make, principally with a view of calling the attention of my professional brethren to the great value of the vectis as a safe and powerful midwifery instrument, and of eliciting their attention to the tractor vectis as superior, not only to the ordinary vectis, which has no tractile power, but also to its greater power and safety over the one mentioned by Dr. Copeman, who seems to have searched but imperfectly for authors on this subject, or he would have been able to quote some recommendation anterior to his own, for this valuable instrument, a pamphlet having been published by me, with plates, in the year 1840, and circulated extensively, and also more fully elucidated in Dr. Clay's *British Record of Obstetric Medicine and Surgery* in the year 1849.

I am, etc.,

JAS. OGDEN, M.D.

Ardwick Villa, Manchester, Feb. 20th, 1857.

NEWBIGGIN BAY AS A HARBOUR OF REFUGE ON THE NORTH-EASTERN COAST OF ENGLAND.

LETTER FROM JOHN C. REID, M.D.

SIR,—I beg to call the attention of my fellow associates, as well as of those members of the legislature who read our influential JOURNAL, to Newbiggin Bay, as a harbour of refuge, however *outre* the subject may appear in a medical publication. I leave the natural construction of the bay as indicative of such an object; the very great depth of water at low tides; the ease of ingress and egress with every wind that blows; the abundance of material wherewith to construct the piers; the rocky foundations; the central position, betwixt the only two places for which vessels in distress can run, viz., the Frith of Forth and the Humber; the immense loss of property during the late heavy gale; not to mention the still greater loss of more valuable lives;—and casting these weighty considerations overboard, I would seek to direct attention to the very important fact of the *salubrity of Newbiggin*, which, in these days of sanitary improvement, stands conspicuous. It is true (and I call upon the registrar-general to contradict me, if he can) that, notwithstanding the almost daily intercourse with the infected districts, neither on the first nor on the subsequent appearance of cholera in this country did a single case occur here: and the same holds true of, I may say, all contagious diseases or epidemics (with the single exception of measles, which has appeared once only during the last seven years). However singular this may appear, it is a fact ("and facts are stubborn chiels that winna ding"), that epidemics have come within only two miles in some instances, and from some cause not hitherto ascertained, have been arrested in their progress.

Therefore, on the sanitary condition of Newbiggin, independently of all its other claims on the consideration of the Government, I would beg leave to suggest the priority of its claims as a fit and proper place for a harbour of refuge on this iron bound coast, extending over two hundred and sixty miles, from Leith to Yarmouth Roads. Even within a radius of fifty miles of this, on the 4th of January, ninety-four ships are known to have gone on shore or foundered, by which, in a few hours, one hundred and sixty-seven valuable lives were sacrificed on the altar of national neglect, or penuriousness—which? Will the present Government wipe this stain from the most philanthropic and liberal-minded nation on the earth?

Medical men have devoted their lives to the preservation of human life; and surely it cannot be out of place to direct their attention to this wilful waste of the defenders of the wooden walls of Britannia, who rules the waves.

I am, etc., J. C. Reid.

Newbiggin-by-Sea, 24th February, 1857.

Parliamentary Intelligence.

HOUSE OF LORDS.—Friday, February 27th.

THE CATTLE DISEASE.

In reply to Lord Polwarth—

Lord Stanley of Alderley said, the Government had received no additional information of the existence of this disease; but the Custom-House officers had power by law to destroy foreign cattle supposed to be affected with any contagious disease. The Government would direct communications to be made to our consuls at foreign ports requesting them to send any information they could obtain: and the Custom-House officers, having their attention called to the existence of the disease, would watch narrowly all cattle imported from abroad.

HOUSE OF COMMONS.—Thursday, February 26th.

DISEASE AMONG CATTLE.

Mr. Stafford asked whether the attention of the Government had been called to the epidemic disease among cattle in Central Europe; and whether the Board of Control had taken any measures to prevent the landing of diseased cattle in this country?

Mr. Lowe replied, that the attention of the Board of Trade had been called to the subject, which had put itself in communication with the Foreign Office, requesting that department to obtain from consuls abroad all the information possible on the subject. The Board of Trade had likewise put itself in communication with the Customs, which department possessed an Act of Parliament, under which it had powers sufficient to prevent the importation of infected animals. As an instance that the officers of that department were not wanting in diligence, he could inform the House, that on a calf on board the *Concordia*, from Rotterdam, exhibiting symptoms of murain, they had the animal killed. Investigation then confirmed the suspicion that the animal was infected, and the body was accordingly destroyed. The remainder of the cargo was examined, and found free from disease.

Mr. Stafford gave notice that to-morrow, on the motion that the House, at its rising, do adjourn till Monday, he should call the serious attention of the House to this question of disease among foreign cattle.

Friday, February 27th.

THE MURRAIN IN CATTLE.

Mr. Stafford said that the answer given to him by the right hon. gentleman the Vice-President of the Board of Trade last evening had filled him and other hon. members with dismay. The right hon. gentleman had said that the Board of Customs had displayed extraordinary sagacity by the destruction of one calf; but it was a subject for alarm that the remainder of the cargo, of which this calf was one, had been allowed to be landed; and it was probable that they might have been infected by it. Would the right hon. gentleman state whether the Board of Customs, or any other department of the Government, had made arrangements for preventing the entrance into this country of one of the most tremendous scourges which could affect a thickly populated land like ours?

Mr. Lowe, in the absence of notice of the hon. gentleman's intention to put this question, could only say that the Board of Trade had put themselves in communication with the Foreign Office, in order to obtain from our consuls all possible information on this subject, and had also communicated with the Board of Customs, from which they had received assurances that they were perfectly awake to the danger which threatened the cattle of this country. As a proof of that, they had stopped one animal and had it killed on suspicion of its being affected with this disease.

Lord Naas thought that the answer of the right hon. gentleman was most unsatisfactory. In 1745 this murrain was introduced into England by two calves from Holland, and the consequence was the destruction of 40,000 head of cattle in Nottinghamshire and Leicestershire, and almost as many in Cheshire. The disease raged with scarcely any intermission for eight years, and visited nearly every part of the grazing districts of England. The disease was of a most contagious character. It had been known to be carried in the clothes of persons who attended upon the cattle, and there had never been a case in which contact had occurred without the disease being communicated. The permitting a cargo of cattle to land one of which was affected with this disorder, must have resulted from the grossest ignorance, or from want of instructions on the part of the officials. The practice of every State in Europe was at once to prohibit the importation of cattle from countries where disease had broken out, and all who had studied the subject were of opinion that it was the duty of our Government to adopt the same system. He sincerely hoped, therefore, that measures would be taken without delay to prevent the extension of this dreadful scourge.

Mr. Packe said this was a subject which concerned every consumer of meat in this country, as well as the graziers and breeders of cattle, and the answers given on that evening and the evening before by the Vice-President of the Board of Trade were most unsatisfactory. Since live cattle had been admitted duty free under Sir R. Peel's measures, there had been a very considerable increase in the fatal diseases to which cattle were liable, and the agricultural interest had been extremely patient under the losses to which it was thereby exposed. They knew that a shipload of diseased cattle had been dispersed over the country, causing great danger of contagion. Cattle bought at fairs sometimes did not show symptoms of the complaint till two or three weeks after they had caught the infection; and the most ruinous losses must ensue to the graziers if a check were not put immediately upon importation. He therefore entreated the noble lord at the head of the Government to take this urgent matter into serious consideration.

Sir J. Tyrrell said that attention had been called to this subject for many years by the Royal Agricultural Society; but in their report on the lungs complaint, that body had come to the conclusion that, unfortunately, nobody knew anything about it. A few years ago, small-pox spread extensively among sheep in this country, the disease having, no doubt, been the result of foreign importation; but it afterwards suddenly disappeared in apparently the most miraculous manner. The right hon. gentleman (Mr. Lowe) said he had destroyed one calf affected with the disease, so that his experience in the matter was plainly very limited.

Lord Palmerston promised that inquiry should be made by the Government, with a view to the adoption of whatever precautions were practicable to prevent the spread of disease among cattle.

Attempt to Poison the Foreign Residents in Hongkong. The correspondent of the *Times* of March 2nd, in a letter from Hongkong dated January 15th, states that an attempt had been made that morning to poison a considerable portion of the foreign community. The author of this diabolical act was a Chinese baker named Esing, who (being doubtless induced by the promises of reward held out by the mandarins) mixed with his bread a large quantity of arsenic, and, after sending it round to his customers, left for Macao in a steamer at 8 A.M. All who partook of this bread were shortly afterwards seized with violent retchings and other symptoms; but, prompt remedies being applied, no deaths had ensued at the date of the letter, although great numbers had been ill, and some were still in a dangerous state. The quantity of arsenic was too large to answer the intended purpose, its presence being immediately betrayed, and antidotes forthwith administered. A steamer had been despatched to Macao, in hopes of intercepting Esing; but it was feared he would have gained the mainland ere she arrived.

Medical News.

BIRTHS, MARRIAGES, DEATHS, AND APPOINTMENTS.

** In these lists, an asterisk is prefixed to the names of Members of the Association.*

BIRTHS.

Jones. On March 1st, at Sydenham, Kent, the wife of Edward Jones, M.D., of a son.

Keyser. On February 28th, at 21, Norfolk Crescent, Hyde Park, the wife of Alfred Keyser, Esq., Surgeon, of a son.

Westmacott. On February 27th, at 10, St. Mary's Terrace, Maida Hill, the wife of John Guise Westmacott, M.D., of a son.

Wilkins. On October 21st, 1856, at sea, on board the ship *Agincourt*, from London to Madras, the wife of Jacob Wilkins, M.D., H.E.I.C.S., prematurely, of a daughter, who survived only a few hours.

*Wilkinson. On February 28th, at Greenheys, Manchester, the wife of M. A. Eason Wilkinson, M.D., of a son.

DEATHS.

Coope. On February 23rd, at Surbiton, Surrey, George Frederick, infant son of A. F. Coope, M.D.

Davies, William, Esq., Surgeon, of South Hackney, at Horncastle, suddenly, aged 57, on February 23rd.

Evans, Thomas, M.D., of Stockwell Park House, Surrey, and Kidwelly, Carmarthenshire, of heart-disease and bronchopneumonia, aged 57, on March 1st.

Gaye. On February 28th, at 14, Oxford Terrace, Chelsea, Emma Anne, fourth daughter of W. J. Gaye, Esq., Surgeon, aged 11.

Gibbs. On February 21st, at Exeter, aged 40, of chronic bronchitis, Sophia Maria Ann, daughter of Harry Leeke Gibbs, M.D.

Hume, John Robert, M.D., C.B., one of Her Majesty's Commissioners in Lunacy, at 9, Curzon Street, May Fair, aged 75, on March 1st.

McManus. On February 24th, in West Square, Georgiana Benigna, widow of the late David McManus, M.D., of Baker Street, Portman Square.

O'Connor, James, M.D., at Bath, aged 87, on February 13th.

O'Dwyer, John, Esq., late of the Bengal Medical Service, at 20, Edward Street, Portman Square, on February 26th.

*Ryland, Frederick, Esq., Surgeon, of Edgbaston, Birmingham, lately.

Squire. On February 21st and 22nd, at Brightlingsea, Essex, the infant twin sons of Samuel Nathaniel Squire, Esq., Surgeon.

Swayne. On February 21st, at Rochester, aged 73, Bessy, widow of the late Stephen Jennings Swayne, M.D., Deputy Inspector of Hospitals.

PASS LISTS.

Royal College of Surgeons. Members admitted at the meeting of the Court of Examiners on Friday, February 27th, 1857:—

Brookhouse, Joseph Orpe, Brighton
Cope, Ricardo, Spark Hill, Birmingham
Hutchinson, William Johnson Dawson, Barnard Castle, Durham
Le Sage, William Louis, Ramsbury, Wiltshire
MacCormac, William, Belfast
MacGregor, John James, Melbourne, Australia
Miller, Charles James, Brighton
Paterson, Charles, Tarland, Aberdeenshire
Pemberton, Clarence Linden Henderson, Landport Terrace, Southsea, Hants
Rengifo, Pio, New Granada
Rogers, Braithwaite, Whitehaven, Cumberland
Smith, Frederick Henry, Greenwich
Smith, Samuel, Hudson's Bay Company
Stuart, Kenneth Bruce, Calcutta
Williams, Joseph, Westerleigh, near Bristol

At the same meeting of the Court—

Hudson, John, of H.M.S. *Rhadamanthus*, passed his examination for Naval Surgeon. This gentleman had previously been admitted a member of the College: his diploma bearing date April 25th, 1853.

HEALTH OF LONDON:—WEEK ENDING FEBRUARY 28th, 1857.

[From the Registrar-General's Report.]

The deaths in London have exhibited a slow but constant decrease during the four weeks of February. In the week that ended last Saturday, the total number registered was 1216. In the ten years 1847-56, the average number of deaths in the weeks corresponding with last week was 1148. But the deaths now returned occurred in an increased population; and for comparison with the average, the latter should be raised proportionally to the increase, in which case it will become 1263. The result of the comparison is a difference of 47, showing that the rate of mortality last week was rather below the average.

The zymotic class of diseases was fatal last week in 197 cases: the corrected average is 243. These figures indicate a very favourable condition of health, especially amongst young persons, who are chiefly liable to many of the diseases included under this head. Hooping-cough is still the most fatal of the zymotic complaints, but it shows a decrease on previous returns, the weekly deaths from it in February having been 61, 70, 74, and 53. Of 45 deaths from typhus and common fever, only six occurred in the southern districts, although in the five divisions of the metropolis the south contains the largest population. The central districts also appear to have been comparatively free from fever, one death in that division having been from scarlatina, and four from typhus. A woman died in Long's Court, in the Charing Cross sub-district, from cholera, after forty-eight hours illness. Mr. Leonard, who attended her during the latter stage of the disease, states that it bore a close resemblance to the Asiatic type.

The deaths from pulmonary diseases were last week 304, whilst the corrected average of corresponding weeks is 276. The excess is not very considerable, and arises from bronchitis, which was fatal in 166 cases (the average being 134), a number greater by 75 than that referred to pneumonia. Phthisis, which stands in the tubercular class, carried off 142 persons. Two persons died of carbuncle; three of intemperance; a boy, nine years of age, died under chloroform administered with the view to an operation. Only two nonagenarians, both widows, and the oldest 91 years of age, are recorded in the returns.

Last week the births of 925 boys and 896 girls, in all 1821 children, were registered in London. In the ten corresponding weeks of the years 1847-56, the average number was 1631.

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·214 in. The mean reading was above 30 in. on every day from Wednesday, the 18th ultimo, to the end of the month. The barometer rose so high as 30·40 in. on Saturday. The mean temperature of the week was 41·2°, and was 1·9° above the average of the same week in 43 years (as determined by Mr. Glaisher). The highest temperature occurred on Saturday, and was 56·9°; the lowest occurred on Wednesday, and was 24·9°. The range of the week was 32°. The mean dew-point temperature was 36·9°, and the difference between this and the mean temperature of the air was 4·3°. The air was frequently calm; the wind was very variable; at the beginning and end of the week it was in the south-west. There was no rain, except a little, not measurable by the gauge, on Wednesday.

Geological Discovery. There has lately been discovered in the blue lias quarries belonging to Mr. John Crees, of Street, Somerset, a very perfect specimen of the plesiosaurus. It measures seven feet nine inches in length from the tip of the snout to the end of the tail. It was lying on its right side at about eighteen feet below the surface, deeply imbedded in one of the lowest of the blue lias rocks, with its beautiful swan-like neck turned very gracefully backwards, and its long tail bent upwards in a curve. Mr. J. E. Crees has spent a great deal of time and labour in cleaning it, and it is now exposed to public view. It is considered by some connoisseurs who have seen it, to be the most perfect specimen that has yet been discovered, there being not the smallest part missing. It is a very remarkable fact, that about eight months ago there was discovered in the same quarry, at about fifteen feet nearer the surface, and, as near as can be ascertained, in a direct line above, a very perfect specimen of the ichthyosaurus, in a bed of marl. The specimen was purchased for His Grace the Duke of Marlborough for nearly £100, and is now included in the collection of the noble duke at Blenheim, Oxfordshire.

POOR-LAW MEDICAL REFORM.

MEETINGS OF THE STUDENTS OF THE MANCHESTER SCHOOL OF MEDICINE.

A preliminary meeting of the students of the Manchester School of Medicine, in support of Mr. Griffin's movement, was held on Thursday, February 19th, W. Ramsden, Esq., in the chair, when a committee, consisting of a chairman, secretary, treasurer, and seven members, was appointed.

A general meeting of the students was held on Tuesday, March 3rd, when the following resolutions were unanimously adopted: Edward H. Petman, Esq., in the chair.

1. Proposed by Mr. Ramsden, and seconded by Mr. Barrett—

"That the Manchester medical students are desirous of expressing their cordial approval of the measures undertaken by Mr. Griffin for the regulation of the salaries of the Union medical officers; and are willing to act in cooperation with other medical students in support of those measures."

2. Proposed by Mr. W. H. Broadbent, seconded by Mr. Payne—

"That this meeting considers that the power of fixing the salaries of Union medical officers, as at present vested, has been the source of great injustice and oppression, and ought to be transferred to a more disinterested and impartial tribunal."

3. Proposed by Mr. Brooke, and seconded by Mr. T. P. Smith—

"That this meeting, considering unity of purpose and good faith among members of the profession of vital importance to the cause of medical reform, desires to express its unqualified disapproval of the conduct of those who not only treat this movement with neglect and apathy, but even act contrary to its principles."

4. Proposed by Mr. Barrett, and seconded by Mr. Gould—

"That this School is in favour of a general meeting of students, representing the different medical schools, to express publicly their approval of, and their determination to assist to the best of their power, any measures taken to secure the more equitable and adequate remuneration of their medical brethren holding public appointments."

5. Proposed by Mr. Sephton, and seconded by Mr. Ramsden—

"That a member of the committee be appointed by ballot to represent this School at the aggregate meeting of students in London."

6. Proposed by Mr. Smith, and seconded by Mr. Brooke—

"That a subscription be entered into towards a fund for defraying the expenses incurred by these meetings and the sending up a delegate, and that the surplus be handed over to Williams' bank to the account of the Poor-Law Medical Reform Association."

7. Proposed by Mr. Payne, and seconded by Mr. Sephton—

"That a report of the proceedings of this meeting be forwarded to the medical and local journals."

Mr. W. Ramsden having taken the chair:

8. Mr. T. P. Smith proposed, and Mr. Broadbent seconded—

"That a vote of thanks be awarded to Edward H. Pitman, Esq., for the able manner in which he has acted as chairman throughout the whole of these proceedings."

9. Proposed by Mr. Gould, and seconded by Mr. Pitman—

"That a vote of thanks be awarded to John D. Bird, Esq., for the able way in which he has discharged his duties as honorary secretary."

Thos. P. Smith was then chosen to represent the School at the general meeting in London.

John Durham Bird, *Hon. Sec.*

MEETING OF STUDENTS OF THE YORK SCHOOL OF MEDICINE.

A meeting of the students of the York School of Medicine was holden on March 3rd, for the purpose of considering the present position of the poor-law medical officers. Resolutions, similar to those passed at the meeting of the London students, were unanimously agreed upon; and subscriptions were entered into by the students and others.

Royal College of Surgeons. The course of lectures in the theatre of the College for the present year will be commenced on Tuesday, the 10th instant, by Professor Busk, who will deliver twelve lectures on the Anatomy, Physiology, and Classification of the Invertebrate Animals. Professor Quekett will, on Tuesday, the 7th of April, commence a course of twelve lectures on the Structure of the Skeleton of Plants and Invertebrate Animals. The course will be concluded by Professor Hewett's six lectures on the Injuries and Diseases of the Head, commencing on the 5th of May.

ACTION FOR RECOVERY OF FEES.

ROBERTS *v.* KERFOOT.

Mr. Hawkins appeared for the plaintiff; and Mr. Turner for the defendant.

The plaintiff, Thomas Roberts, was a surgeon and apothecary in Bridge-street, Southwark, and he sued the defendant, Thomas Kerfoot, a publican at Stockwell, to recover the sum of £46 6*s.* 7*d.*, being the amount of the plaintiff's bill for his attendance as a surgeon and medicines supplied to the defendant's wife. From the plaintiff's evidence it appeared that in the month of June, 1850, he was called in to attend the defendant's wife, and continued to do so daily, and often twice a-day, down to the beginning of October. The defendant at that time was living in the New North Road, Hoxton, and was keeping a public-house there. The plaintiff paid in all about seventy visits, having to treat his patient for prolapsus uteri and femoral hernia. With the assistance of the surgeon from Guy's Hospital the hernia was reduced, and the patient recovered of her other complaints, though she died afterwards of consumption. The plaintiff charged 5*s.* for each visit, and when the defendant removed to Warwick Place, Pimlico, he charged 7*s.* 6*d.*, and generally at Hoxton charged for two visits each day. The rest of the bill was made up of charges for medicines. The plaintiff was cross-examined to show that the case was a medical, and not a surgical case, and that he had undertaken to attend as a friend, upon the understanding that he should have refreshments, dinners, wines, and spirits, etc., in lieu of payment. The plaintiff denied this suggestion, though he admitted that he often had taken refreshment at the defendant's house, and had had wine (two dozen) sent to him by the defendant.

Mr. Turner submitted that the plaintiff had no case. The bill was an apothecary's bill, and the Apothecaries' Act required that before an apothecary could recover on such a bill he should prove that at the time he was a licentiate of the company. The learned counsel cited the "Apothecaries' Company *v.* Lotinga" (2 M. and R., 495).

Lord Campbell said there was evidence to go to the jury.

Mr. Turner examined the defendant, who stated that in June, 1850, he called in the plaintiff to attend his wife for consumption, and that he attended as a friend, upon the understanding that he should have refreshments, dinners, etc., free of charge. He said he had sent the plaintiff wine, whisky, and rum. He also produced an account of refreshments which he said the plaintiff had had at his house. This amounted to about £22.

The plaintiff had accounted for the delay in enforcing his demand by saying that when he asked the defendant for payment of his bill the defendant pleaded his inability to pay. The defendant, however, stated that for some years the plaintiff had made no demand at all, and he relied upon the length of time which had elapsed since October, 1850, as confirmation of his statement as to the terms on which the plaintiff had attended.

Lord Campbell, in summing up the evidence, said the first question for the jury was whether the plaintiff had attended on the terms suggested by the defendant; for, if so, he could not recover. If the jury thought there was no such agreement, they must then see how much of the plaintiff's bill was for attendance and medicines supplied as a surgeon. For so much the plaintiff could recover. But, as to the services and medicines supplied by the plaintiff as an apothecary, the plaintiff could not recover, for in the year 1850 he was not a licentiate of the Apothecaries' Company, though he was so now.

The jury found for the plaintiff—Damages, £20.

Medical Society of London. The Fothergillian gold medal has been awarded to Mr. Edward Canton, for an essay on "Diseases of the Spine". A silver medal has been awarded to Dr. Edward Smith, for special services rendered to the Society during the four years in which that gentleman has held the office of Honorary Secretary. The silver medal which the Society offers to an Honorary or Corresponding Fellow, or to a non-Fellow, for a paper read before the Society, and which was last year awarded to one of our associates, has not been this year awarded.

Medical Society of London. On this (Saturday) evening, a paper will be read by Graily Hewitt, M.D., "On the Diagnosis of Apneumatosis (Pulmonary Collapse)."

The general meeting for election of Officers and Council will take place the same evening at 7 o'clock.

DR. KANE, THE ARCTIC VOYAGER. Our American advices state that a despatch had been received in New York by Mr. H. Grinnell, conveying sad intelligence of the intrepid Dr. Kane. The despatch comes *viâ* Mobile, and is as follows:—

"Havannah, February 13th, 1857.

"Dr. Kane is still alive, but he can't last through the day. His mind keeps right. He has just left his friends, and bidden his countrymen farewell. "W. MORTON."

Mr. Morton has been Dr. Kane's faithful servant and steward for the last seven years, and accompanied him twice to the Arctic regions. Dr. Kane is thirty-four years of age. His disease is of a scrofulous nature, arising from scurvy and exposure during his northern explorations. His life has four times been almost despaired of—once in Egypt, from an attack of plague; once in Africa, prostrated by the African fever; once in the Mediterranean, with lock-jaw; and he was dangerously wounded in the Mexican war, while carrying despatches for General Scott between Vera Cruz and Mexico. (*Times.*)

DISPENSING OF MEDICINES BY HOMŒOPATHIC PRACTITIONERS. The Imperial Court of Bordeaux, in November last, decided, in respect to a case brought before it, that the infinite small doses of homœopathic medicines had no active power which could bring them under the control of the law regulating the sale of drugs in France. An appeal against this decision having been brought before the Court of Cassation at Angoulême, it was there ruled that homœopaths have no right to dispense their own medicines, but that they must confine themselves to prescribing, and have their medicines furnished by druggists keeping open shops.

TO CORRESPONDENTS.

LETTERS and other COMMUNICATIONS for the JOURNAL should be directed to the private address of the Editor, 39, Curzon Street, May Fair.

TO CONTRIBUTORS. The Editor would feel glad if Members of the Association and others, would cooperate with him in establishing as a rule, that in future no paper for publication shall exceed two pages of the Journal in length. If the writers of long communications knew as well as the Editor does, that lengthy papers *always* deter the reader from commencing them, this great evil would never arise. Brevity is the soul of medical writing—still more than of wit.

Members should remember that corrections for the current week's JOURNAL should not arrive later than Wednesday.

NOTICE.—DR. WYNTER will feel obliged if the Associates will address all Post Office Orders in payment of Subscriptions, to the Publisher, Mr. THOMAS JOHN HONEYMAN, 37, Great Queen Street, Lincoln's Inn Fields, London, W. C., "Bloomsbury Branch"; and he would also feel obliged by their sending all communications respecting the non-receipt of the Journal, to the same address; as both these matters are out of the province of the Editor.

A STUDENT is recommended to make the best use of the opportunities afforded him of acquiring such a knowledge of his profession as shall obviate embarrassment in emergencies. A clear knowledge of principles, and sound common sense, are the best guides of every medical man. But, if our correspondent wishes to have a portable book which he may use to refresh his memory in difficult cases, we would recommend to him "Shaw's Medical Remembrancer", published by Churchill.

A VILLAGE DOCTOR, whose letter on Professional Charges appeared in the BRITISH MEDICAL JOURNAL of February 7, will much oblige by forwarding his name and address to the Editor. A letter for the "Village Doctor" has been forwarded to the Office of the JOURNAL, but his address, formerly given, has unfortunately been mislaid.

HOMŒOPATHIC MEDICAL PRACTICE. The subjoined Circular has been forwarded to us. Dr. Eadon's condescension in consenting to extend the benefits of Homœopathy to the working classes, at low charges, will no doubt be duly appreciated.

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THE TOBACCO QUESTION. An Associate, who does not wish his name to appear, is "surprised" at our defence of the moderate use of Tobacco, and among others, asks us the following questions. "If the smoke does not enter the lungs, how is it that I have seen it come from an opening in the trachea as long as the pipe was kept in the mouth; and where does the black sputum come from in miners and others who are exposed to dust and smoke". In answer to the first part of this question, we must confess that we have never had the opportunity of seeing the smoke coming from an opening in the trachea; and with respect to the second, it answers itself; it is the coal dust of the *atmosphere* which enters the lungs and blackens the sputum, the tobacco smoke having nothing to do with it. The sputa of colliers, who never smoke, is just as black as that of those who do. Our correspondent again asks, "What does your statement of its consumption in the Asylums prove, except that it is has become necessary from abuse, and the habit cannot be abandoned all at once; does it not lead to the presumption that a many of the patients have smoked away their senses, and thus been sent to the Asylums to be cured?" The answer to this question is simple. Women preponderate in Lunatic Asylums, and women, as a rule, do not smoke.

W.B. Our series of Articles on the "Diseases of Special Occupations" will commence next week, with a Paper on the "Grinders' Disease", by our able Associate, Dr. J. C. HALL, of Sheffield. It will be continued weekly.

Communications have been received from:—DR. J. C. HALL; DR. J. BALLARD PITT; MR. AUGUSTIN PRICHARD; MR. JOHN BURROWS; DR. G. GODDARD ROGERS; MR. J. S. GAMGEE; MR. H. W. RUMSEY; DR. DAVID NELSON; MR. GEORGE GREAVES; DR. EDWARD SMITH; MR. WILLIAM MITCHELL CLARKE; DR. W. O. MARKHAM; MR. T. HOLMES; MR. THOMAS PAGET; DR. LITTLE; DR. F. BRITTAN; DR. OGDEN; DR. H. REID; DR. HALFORD; DR. SIEVEKING; DR. MCWILLIAM; MR. ARTHUR B. RYE; DR. RADCLYFFE HALL; MR. E. MCDERMOT; MR. W. H. WINCHESTER; DR. SLOANE; and MR. LUPTON.

BOOKS RECEIVED.

[* *An Asterisk is prefixed to the names of Members of the Association.*]

1. Cases and Observations illustrative of the Beneficial Results which may be obtained by close attention and perseverance in some of the most unpromising instances of Spinal Deformity, without the use of Steel Stays or other similar contrivances: with Engravings illustrative of the Cases. By *Samuel Hare, F.R.C.S. Second Edition. London: John Churchill. 1857.
2. Clinical Lectures on Certain Diseases of the Urinary Organs: and on Dropsies. By Robert Bentley Todd, M.D., F.R.S. London: Churchill. 1857.
3. On Diseases of the Skin. By *Erasmus Wilson, F.R.S. Fourth Edition. London: Churchill. 1857.
4. The Anatomical Remembrancer or Complete Pocket Anatomist. Fifth Edition. London: Churchill. 1857.
5. Cranial Presentations and Cranial Positions suggestions Practical and Critical. By *R. U. West, M.D. pp. 60. W. Mackenzie, Paternoster Row, London.
6. Address to the Medico-Chirurgical Society of Edinburgh, delivered on the taking the Chair of the Society, December 17th, 1856. By *James Miller, F.R.S.E., Professor of Surgery in the University of Edinburgh. pp. 16. Edinburgh: Murray & Gibb.
7. The Monogenesis of Physical Forces: a Lecture delivered at the London Institution on February 18, 1857. By Alfred Smee, F.R.S. London: Longmans. 1857.
8. Statistical Society of London. First Report of the Committee on Beneficent Institutions. 1. The Medical Charities of the Metropolis. London: John William Parker & Son. 1857.

ADVERTISEMENTS.

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The present Examiners are eligible, and intend to offer themselves, for re-election.

Candidates must announce their names to the Registrar on or before the 25th of March.

Burlington House, March 4th, 1857.

By order of the Senate, WM. B. CARPENTER, Registrar.

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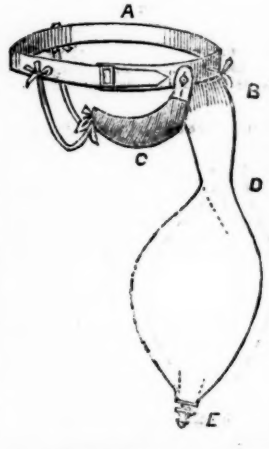

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